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Exterior Architectural Finishes in Puerto Rico: The Painting Traditions of Guayama's Vernacular Architecture

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Exterior Architectural Finishes in Puerto Rico: The Painting Traditions of Guayama's Vernacular Architecture

Abstract

The vernacular architecture of Puerto Rico has been previously investigated, but research has yet to address the symbolic and aesthetic expression of that form through formal paint analysis. Guayama's urban houses are distinctive through their style, color and materials. Color plays a fundamental role in domestic architectural expression, but it is often overlooked by the preservation field. To date, there has been limited scientific research completed to record the materials and palette used in Caribbean architectural painting. As a general rule buildings are frequently studied as isolated entities, but rarely as a group, addressing color schemes and paint palettes across a building typology or locale.

This thesis attempts to generate a historically derived exterior color palette by examining paint samples from a group of representative houses to gain an understanding of the finishes employed in Pan-Caribbean domestic architecture. The research utilizes: 1) historical research and documentation of representative structures, 2) stratigraphic analysis of paint finishes, 3) comparative analysis of decorative trends, and 4) visual tools for understanding the buildings original finishes. The historic paint research conducted for this thesis focused on the front elevations or balcones (porches) of vernacular creole houses. Historically paint and decorative motifs are concentrated on the façade of a house making it the most vibrant and diverse feature.

Disciplines

Historic Preservation and Conservation

Comments

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EXTERIOR ARCHITECTURAL FINISHES IN PUERTO RICO: THE PAINTING
TRADITIONS OF GUAYAMA'S VERNACULAR ARCHITECTURE.

Betty Louise Prime

A THESIS

in

Historic Preservation

Presented to the Faculties of the University of Pennsylvania in
Partial Fulfillment of the Requirements of the Degree of

MASTER OF SCIENCE IN HISTORIC PRESERVATION

2011

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Professor of Architecture

Program Chair
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*This thesis is dedicated to the community of Guayama.
This research is your history.*

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Thank-you to Natalie Karas, who gave up five days of her life to take hundreds of paint samples for my thesis. I truly appreciate your hard work and friendship. Special thanks to Gladysa Vega for being my official translator.

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TABLE OF CONTENTS

1.0	Introduction	1
2.0	Site Description	3
3.0	Brief History of Wooden Building Typology Present in Guayama	6
3.1	Materials and Palette for Architectural Exterior	10
3.2	Current Condition of Housing Stock	12
4.0	Literature Review	23
4.1	Regional Research: Color Research in the Caribbean	28
4.2	Local Color Research: Puerto Rico	28
5.0	Testing Methodology for Finishes Analysis	32
5.1	Paint Analysis Research.....	32
5.2	Previous Paint Studies in Guayama.....	32
5.3	Site Selection	33
5.4	Building Information Database	36
5.5	Sample Numbering	36
5.6	Methods of Paint Investigation	37
5.6.1	Paint Exposures	38
5.6.2	Sample Extraction for Cross-Sectional Analysis.....	38
5.7	Drawings.....	40
5.8	Instrumental Analysis: Finishes.....	41
5.8.1	Optical Light Microscopy	41
5.8.2	Sample Preparation: Embedding Paint Cross Sections for Microscopic Analysis	41
5.8.3	Analysis and Observations	43
5.8.4	Fluorescence Microscopy	43
6.0	Observations and Interpretation of Paint Stratigraphy by Site Location.....	54
6.1	43 S. Ashford Street.....	55
6.2	3 N. Ashford Street	57
6.3	48 N. Santiago Palmer Street.....	60
6.4	4 E. Cecelio Dominguez Street.....	63

6.5	6 E. Cecelio Dominguez Street.....	65
7.0	Conclusions: Comparative Analysis and Exterior Decorative Trends in Guayama's Vernacular Creole Houses (1870-1900)	66
7.1	Trends in Original Exterior Color.....	66
7.2	Painting Traditions and Techniques in turn of the 19th Century Guayama	69
7.3	Color Palette Trends Over Time	71
8.0	Recommendations	72
9.0	Appendix	86
9.1	Appendix A: Glossary of Terms	8
9.2	Appendix B: Maps	89
9.3	Appendix C: Historic Documentation	9
9.4	Appendix D: Building Information Sheets for Sample Sites	142
9.5	Appendix E: Master Sample List	163
9.6	Appendix F: Cross Section Microscopy with Florescence and Reflective Light	173
9.7	Appendix G: Color Matrix and Digital Reconstructions of Original Color Schemes	268
10.0	Index	270

LIST OF FIGURES

Figure 2.1: Map of major cities in Puerto Rico	6
Figure 2.2: Historic photograph of the cathedral and plaza in Guayama, 1900	6
Figure 2.3: Historic postcard of cathedral and plaza in Guayama, 1906	7
Figure 2.4: Historic postcard of Ashford Street, 1930	7
Figure 2.5: Historic map of Guayama showing development over time	8
Figure 2.6: Map of Guayama Historic Zone	9
Figure 3.1: Photograph of vernacular creole house	18
Figure 3.2: Photograph of zinc siding panels	18
Figure 3.3: Photograph of the exterior of typical 3-bay vernacular creole house	19
Figure 3.4: Photograph of the interior of typical 3-bay vernacular creole house	19
Figure 3.5: Photograph of the exterior of vernacular creole house	20
Figure 3.6: Photograph of the interior of vernacular creole house	21
Figure 3.7: Example of hydraulic tile pattern	22
Figure 3.8: Photograph of paint detaching from wood paneling	23
Figure 3.9: Photograph of insect damage on a wood structural member	31
Figure 4.1: Color Vignette of French vernacular architecture	32
Figure 4.2: Map depicting results of color research	32
Figure 4.3: Color chart of current color palette on the island of Martinique	33
Figure 3.9: Photograph of insect damage on a wood structural member	47
Figure 5.1: Photograph of sample extraction from a column capital	48
Figure 5.2: Photograph of sample extraction from a column capital	49
Figure 5.3: Photograph of sample extraction from a door	50
Figure 5.4: Photograph of sample exposure adjacent to a door	51
Figure 5.5: Photographs of cross-section paint sample preparation	51
Figure 5.6: Close up photograph of paint samples cast in Biolplast resin	52
Figure 5.7: Photograph of paint sample cubes	52
Figure 5.8: Diagram of casted paint sample	53
Figure 6.1: Reclaimed tromp l'oeil panels above the door at 3 S. Ashford Street.....	65
Figure 6.2: Photograph of altered building base at 6 E. Cecelio Dominguez Street....	65

1.0 Introduction

Guayama is one of the few cities in Puerto Rico that retains a majority of its 19th century wooden urban architecture. Over the last twenty-five years the city of Guayama has experienced an increase in abandoned historic homes. This has led to accelerated deterioration from a lack of maintenance and neglect leaving a town littered with uninhabited structures in varying degrees of disrepair. Despite this, current homeowners and advocates within the community have a strong appreciation for the history and significance of their domestic architecture. Local historians and architects in Guayama recognize the need to document and record their unique architecture as the first step toward its preservation.

The vernacular architecture of Puerto Rico has been previously investigated, but research has yet to address the symbolic and aesthetic expression of that form through formal paint analysis. Guayama's urban houses are distinctive through their style, color and materials.¹ Color plays a fundamental role in domestic architectural expression, but it is often overlooked by the preservation field. To date, there has been limited scientific research completed to record the materials and palette used in Caribbean architectural painting. As a general rule buildings are frequently studied as isolated entities, but rarely as a group, addressing color schemes and paint palettes across a building typology or locale.²

This thesis attempts to generate a historically derived exterior color palette by examining

1 Jopling, Carol F. *Puerto Rican Houses: in Sociohistorical Perspective*. Knoxville: University of Tennessee, 1992. Print. p.204. Note: quote extracted from Antonio Martorell's *La Estetica Visual Puetorriquena*. In *Los Puertorriquenos y la Cultura*.

2 Note: Paint research in Puerto Rico is limited to public and civic buildings. Known examples include: San Geronimo and Santa Elena Powder Magazines, the Rosario Chapel in the Iglesia San Jose, the Old Real Audien-
cia Territorial Building, Capilla del Santa Cristo de la Salud, and Capilla de Conveto de los Dominicos, Iglesia de San Jose.

paint samples from a group of representative houses to gain an understanding of the finishes employed in Pan-Caribbean domestic architecture. The research utilizes: 1) historical research and documentation of representative structures, 2) stratigraphic analysis of paint finishes, 3) comparative analysis of decorative trends, and 4) visual tools for understanding the buildings original finishes. The historic paint research conducted for this thesis focused on the front elevations or balcon (porches) of vernacular creole houses. Historically paint and decorative motifs are concentrated on the façade of a house making it the most vibrant and diverse feature.

2.0 Site Description

The Municipality of Guayama was founded by Governor General Don Matías de Abadía in 1736 on the Southern Coastal Valley between Salinas and Patillas (figure 2.1).³ At the time of its founding it was known as *San Antonio de Padua de Guayama*. By 1776 the town square, church and over 200 houses were established.⁴ The city continued to expand, until 1832 when a massive fire destroyed all existing structures; only the church and city hall remained intact (Figure 2.2 and 2.3).⁵ A new master plan was developed by the French town-planner Alexander da Costa.

The primary religious and public institutions were positioned on the town square with houses radiating from the center and organized by a gridded street pattern. Structures located on the town square were traditionally masonry; one block back they transitioned to wooden residential buildings (figure 2.4).⁶ Historic houses closer to the town square are older and more refined than those houses situated farther from the town center. A map from 1922 illustrates general trends of development in Guayama. By the early 1900's the northern, southern, and eastern quadrants of the city were fully developed (figure 2.5). Eastern development followed in the 1930's. Guayama is the only city in Puerto Rico to fully execute the design of its original master plan.⁷ Over a century and a half has passed since the origination of this master

3 Colon Mendoza, Hector Luis, and Diana Luna. *Application to the Institute of Puerto Rican Culture for Historic Zone Status: Guayama*. Application for Historic Zone Designation: Puerto Rico. Guayama: Municipality of Guayama, 1991. Print. Datos Historicos p.1. Translated by author.

4 Colon Mendoza, Hector Luis, and Diana Luna. Datos Historicos p. 2. Translated by author.

5 Colon Mendoza, Hector Luis, and Diana Luna. Datos Historicos p. 2. Translated by author.

6 Rigau, Jorge. *Puerto Rico 1900: Turn-of-the-century Architecture in the Hispanic Caribbean, 1890-1930*. New York: Rizzoli, 1992. Print.

7 "Guayama Architecture: Preservation and Historic Zone with Diana Luna." Personal interview. 02 Feb. 2011.

plan; today the scale, sequence, and rhythm of the residential streets remain. An estimated 70% of the historic houses constructed of wood are intact. The condition of these structures is highly variable.

In an effort to conserve the “harmony and urban coherence of the city”; Hector Luis Colon Mendoza, the mayor of Guayama from 1985-2009, spearheaded an initiative to preserve and restore abandoned historic buildings.⁸ The “government acquired a few buildings of historic value, and renovated them as models for the community”; examples include the Municipal Tourism office, Casa Cautino, and Bernardini Theater.⁹ In 1991 Colon worked in collaboration with architect Diana Luna to inventory historic structures and nominate the city as a local historic district. Of the 995 buildings inventoried by the municipality, 515 were designated eligible historic structures; few of which were public buildings.¹⁰

In July of 1992 the urban center of Guayama was designated a Historic Zone by the Institute of Puerto Rican Culture. The official name is Zona Historica de Guayama (figure 2.6). Domestic architecture is a key component of the historic district. Regulations are in place to protect structures located within the boundaries of the historic zone. According to Act 374 this designation gives the Planning Board of Puerto Rico the authority to protect historic context through regulated land use.¹¹ The City Government of Guayama and the Planning

8 Colon Mendoza, Hector Luis, and Diana Luna. Introduction Letter. Translated by author.

9 Martinez, Augusto. Materials and Construction Techniques in Caribbean Architecture during the Sixteenth to Eighteenth Centuries: Recommendations for their Conservation. *International Symposium on Historic Preservation for Puerto Rico and the Caribbean Third International Symposium of Historic Preservation on Puerto Rico and the Caribbean*. San Juan: May 9-13, 1994. Print. p. 1.

10 Colon Mendoza, Hector Luis, and Diana Luna. *Application to the Institute of Puerto Rican Culture for Historic Zone Status: Guayama*. Application for Historic Zone Designation: Puerto Rico. Guayama: Municipality of Guayama, 199. Print.

11 Algeria, Ricardo E. “History of Preservation and Restoration of the San Juan de Puerto Rico Historic Zone.” *International Symposium on Historic Preservation for Puerto Rico and the Caribbean Third International Sympo-*

Board work in collaboration to prohibit the demolition of any eligible structure without authorization by a commissioned body of historians, architects, and citizens.¹²

sium of Historic Preservation on Puerto Rico and the Caribbean. San Juan: May 9-13, 1994. Print. p.1.
12 Algeria, Ricardo E. p.1.



Figure 2.1: Map of major cities in Puerto Rico. Red box highlights the city of Guayama located on the southern coast. (Jopling, 1992)



Figure 2.2: Historic photograph of the cathedral and plaza in Guayama. Photo taken circa 1900. (Library of Congress)

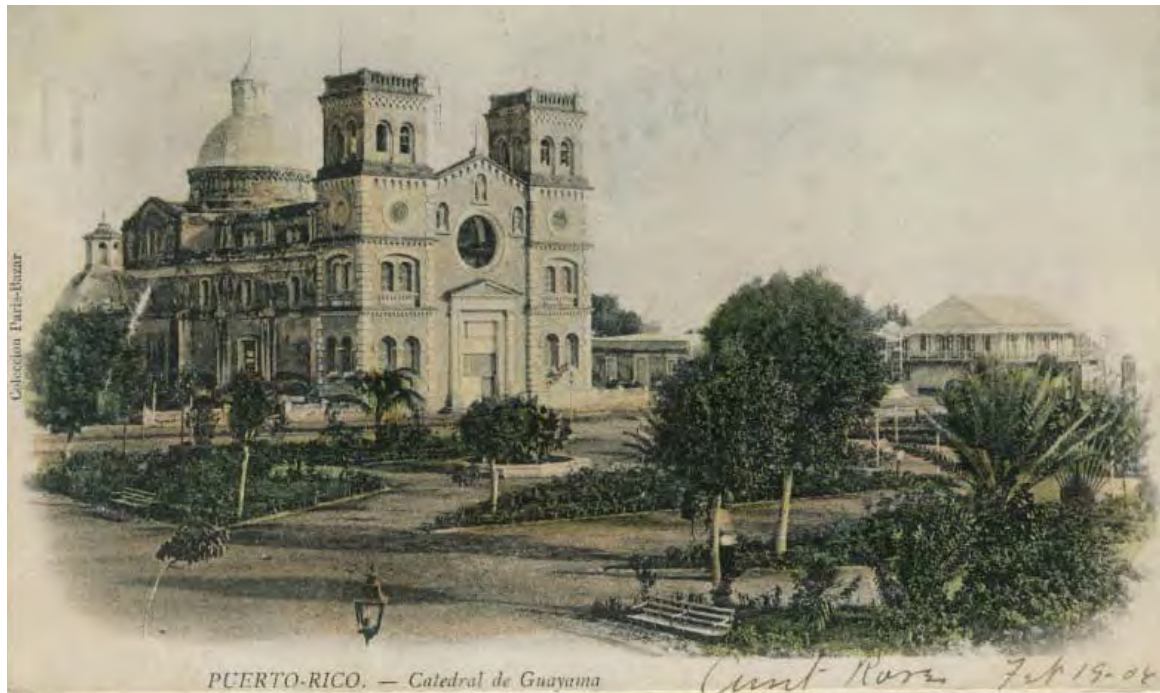


Figure 2.3: Historic postcard of cathedral and plaza in Guayama. Photo circa 1906. (Antanlontan Antilles)



Figure 2.4: Historic postcard of Ashford Street. Photo circa 1930. (Rodriguez Archives)

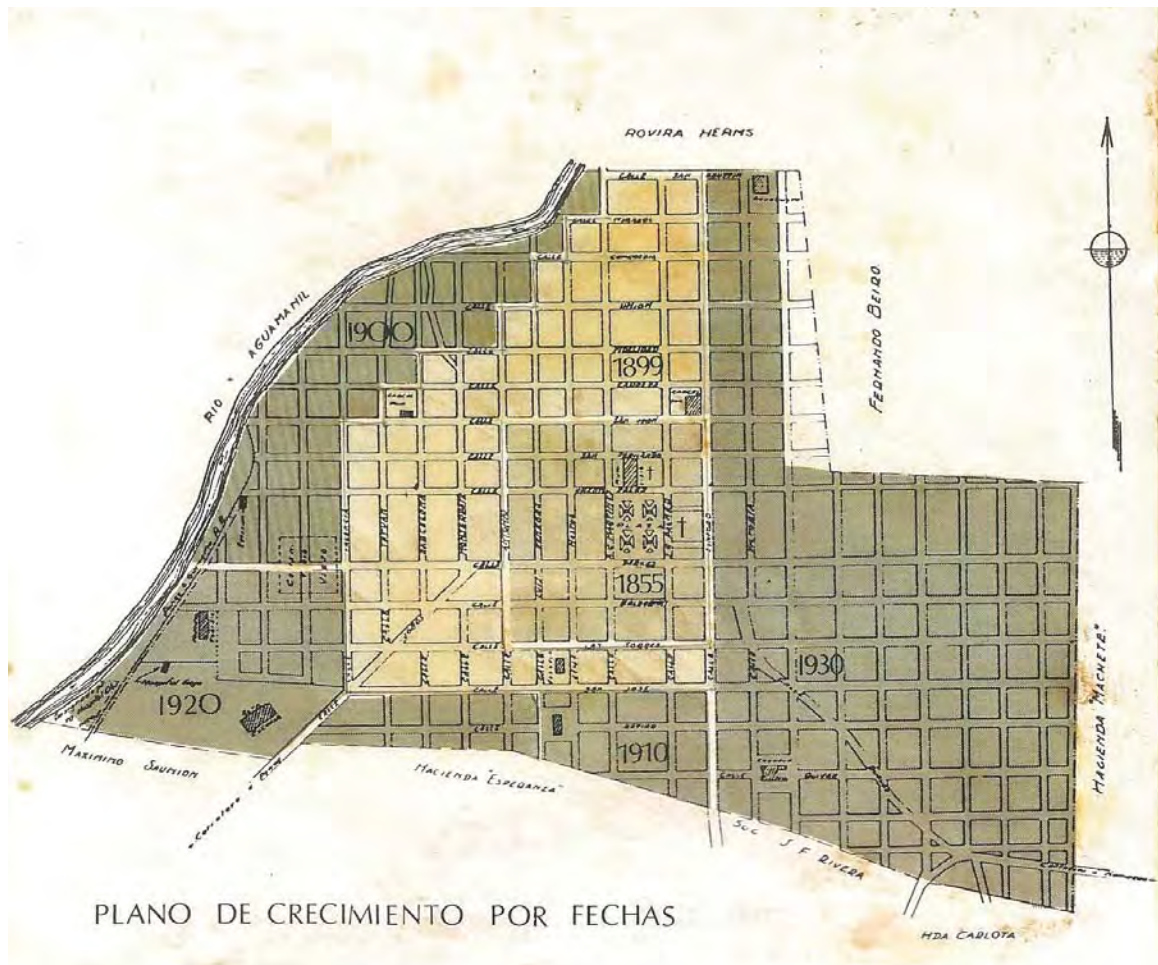


Figure 2.5: Historic map of Guayama showing development over time. (map courtesy of Diana Luna, source unknown)

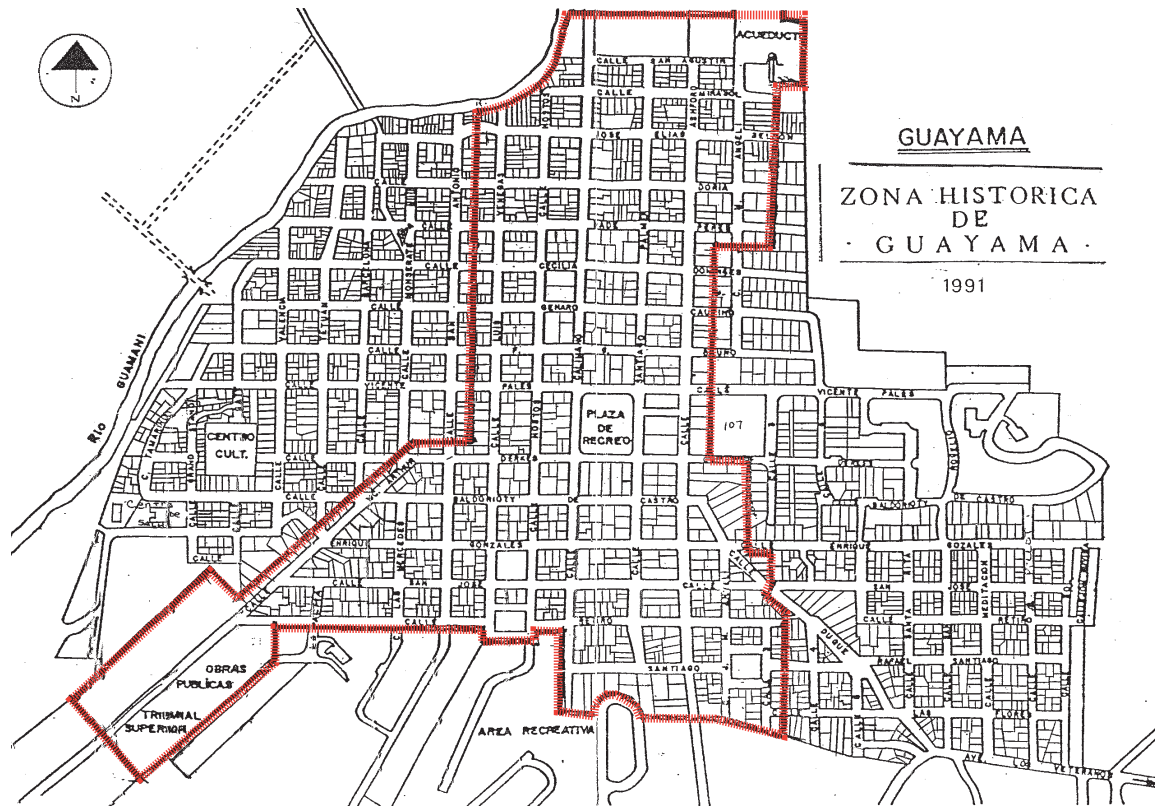


Figure 2.6: Map of Guayama Historic Zone. The red line marks the perimeter of the district. (map courtesy of Guayama's DowntownHistoric Office)

3.0 Brief History of Wooden Building Typology Present in Guayama

In Puerto Rico, a house is the personification of an individual's individuality. Like other countries in the West Indies the vernacular architecture of Puerto Rico is influenced by the diverse cultural background of its inhabitants, drawing elements from its African, local Indian, and European ancestry. Throughout Puerto Rican history, architecture has evolved as a blending of styles, taking cues from its cultural and climactic conditions, and mixing them with the personal preferences of the owner to develop a unique genre of architecture. "The simplified elements of disparate traditions thus combine in each island to create a new form which provides the basis for the development of an original type of dwelling."¹³

Architecture in Puerto Rico diversified with exposure to the outside world, evolving from a mainly colonizing Spanish influence to a multi-stylistic approach.¹⁴ As early as the 1850's evidence of Victorian Europe, the Caribbean, and New Orleans can be seen in Guayama's wooden houses.¹⁵ The 1848 abolishment of slavery laid the groundwork for further diversification in architecture, introducing a middle class in need of smaller scale accommodations. New typological models deviated from higher style typologies characterized by entry on the long side, to incorporate entrances at the gable end of the building.

The scale of domestic structures varies greatly based on the socio-economic status of its residents, but the characteristic horizontality, rhythm, and balance are universally applied.

Each city is marked by unique decorative patterns and form. As one local historian wrote,

13 Berthelot, Jack, and Martine Gaumé. *Kaz Antiyé: Jan Moun Ka Rété*. Goyave] (Maison Berthelot, Blonzac, F97128): Éd. Perspectives Créoles, 2002. Print. p.28.

14 Jopling, Carol F. p.40.

15 Fernandez, Jose Antonio. p.10.

“Architecture cannot have a nationality, but must be, as it should be, a product of the region in which our ‘island’ is located.”¹⁶ The development of regional building typologies across Puerto Rico has generated a highly variable building stock that can be difficult to categorize into a typological system.¹⁷

Several publications depicting the vernacular architecture of Puerto Rico have been published including: *Puerto Rican Houses in Sociohistorical Perspective*, *San Juan Tras Fachada*, and *Kaz Antiyé: Jan Moun Ka Réte*. Carol Jopling’s book *Puerto Rican Houses of Sociohistorical Perspective* is particularly notable. In the text Jopling searches for “socio-cultural explanations of the diverse forms and the varied configurations of Puerto Rican Houses”.¹⁸ The text outlines rural and urban domestic building typology, drawing clear distinctions between the vernacular and designed. The urban typologies presented in *Puerto Rican Houses in Sociohistorical Perspective* will be the baseline for the typologies presented in this thesis. Delimiters have been placed on the period of interest, addressing wooden domestic architecture constructed between 1870 and 1910. For the purposes of this thesis I am interested only in the wooden building typologies extant in the historic urban center of Guayama.

According to Jopling, the three main styles of wooden urban architecture built during this period were Spanish Creole (Criollo), Vernacular Creole (Criollo Pueberlino), and Vernacular (Pueberlino). The wooden building typology of Guayama share characteristic elements: elevated base (1-4 ft), rhythmic facades with evenly spaced doors, wooden jalousies, ornamental

16 Fernandez, Jose Antonio. *Architecture in Puerto Rico*, New York: Architectural Book Pub., 1965. Print. p.11.

17 Jopling, Carol F. *Puerto Rican Houses: in Sociohistorical Perspective*. Knoxville: University of Tennessee, 1992. Print. p.66-69.

18 Jopling, Carol F. p.1.

transoms, and wood siding. In all instances the form is designed largely in response to its environment. “The use of wood as a construction material was dominant on the southern coast of Puerto Rico because of its extreme heat and humidity.”¹⁹ Transoms, elevated bases, high roofs, and hollow cavity walls work in conjunction to promote the movement and circulation of air.²⁰ Local, indigenous trees were used to construct the houses.

Spanish Creole and Vernacular Creole houses have analogous stylistic features. The variation comes in their engagement with the street. Similar to Spanish Colonial residential architecture, Spanish Creole houses dominate the lot, presenting a solid wall to the street. The vernacular typologies in Guayama engage the street by incorporating balcones or porches. The porch serves as an intermediate space between the public sidewalk and the private home. Vernacular Creole houses vary in stylistic expression. Richer houses were more concerned with façade composition and adherence to a stylistic genre. Access to professional builders and knowledge of architectural styles projected an image elevated status within the community. The facades and balcones (porches) of these houses are highly ornate and composed of more than three bays. The number varies greatly; Guayama has houses with as many as seven bays. Standard facades have double leaf doors with jalousies at the center of each bay, but variations are present (figures 3.5 and 3.6). More typical of the housing stock in Guayama are examples of Vernacular Creole houses designed by homeowners using “design handbooks” and built by carpenters. Owners of these homes were less concerned with adhering to one style, but choosing decorative elements according to personal preferences. Typical houses of

19 Jopling, Carol F. p.4.

20 Rigau, Jorge. p.37.

this style are between two and three bays. Pueberlino houses were developed by the middle class and are characteristically less refined and more obviously utilitarian with minimal decoration. These structures are smaller in scale and incorporate multiple styles within one structure. Vernacular houses were always designed by owners and built by local carpenters. Today, there are no Spanish Creole houses still extant in Guayama. Vernacular Creole houses dominate the historic building stock in the Historic Zone. Pueberlino houses still remain but most have not been well maintained.

3.1 Materials and Palette for Architectural Exterior

The wooden urban building typologies in Guayama vary in scale, decorative vocabulary, and plan; but each employs color as a means of architectural expression. This can be seen most prominently on the porches and facades. Puerto Ricans use this space for entertainment and reception. For this reason, the facades of a vernacular building are typically the most “concentrated point of decorative motif and paint”.²¹ The amount of ornament varies based on personal taste, but colors are historically more conventional on grander homes; where the woodwork was seen as the focal point of decoration.²² Vernacular houses have less ornamental woodwork and therefore depend on paint as a major decorative feature.²³

The siding of the facades is variable across each building typology. Types of siding include plain and beaded clapboard, herringbone, cove, ship-lapped, and flush (figures 3.1 and 3.5).

The herringbone siding is limited to the Vernacular Creole houses. Flush siding has been used historically to imitate masonry construction. Pueberlino houses employed simple siding

21 Jopling, Carol F. p.70.

22 Jopling, Carol F. p.204-205.

23 Jopling, Carol F. p.204.

profiles; clapboard siding is the most common.

The railings and columns that frame the porches have a highly variable material palette. Historically constructed of wood and cast iron, many have been modified in the recent past with galvanized pipe columns, new cast iron balustrades, and concrete. Guayama has examples of Vernacular Creole houses with original cast iron bracketed columns; which is an unusual feature found only on the southern coast of Puerto Rico.

Door and window transoms were another common location for ornamentation. “Given the surrounding tropical context, houses needed to breathe, and sophisticated lace-like wood craftsmanship allowed it to happen in an alluring way.”²⁴ Many historic structures in Guayama still retain the pierced wood transoms (figure 3.3). Decorative glass in a wide range of colors was also used for transoms, windows, and sidelights.²⁵ The material was imported from Europe and North America. Original glass is rare given the fragile nature of the material. The material palette used for the construction of porches during the late 19th century was primarily wood, but it is possible that some structures constructed during this period used Portland cement. The first documented “project to incorporate “plastic or artificial stone or the true English Portland Cement” was that to pave the sidewalks and streets of the important southern town of Ponce in 1879.”²⁶ At this time the Portland cement was only available

²⁴Rigau, Jorge. p.159.

²⁵Rigau, Jorge. p.158.

²⁶ Cueto, Beatriz del. *Puerto Rican Construction Traditions*. Print. p.1. Palma, Fernando, October 15, 1879, “*Proyecto de Aceras y Calles dirigido al Ilustre Ayuntamiento de esta Ciudad [Ponce] por el Contratista Fernando Palma*”. [Project for the Sidewalks and Streets directed to the Illustrious Municipal Government of this city [Ponce] by the Contractor Fernando Palma.] Archivo Histórico de Ponce [Ponce Historical Archives]. Translated from Spanish by the author.

as an imported material.²⁷ The economic status of homeowners would limit access, but the material was obtainable. Further research is needed to determine when cement and concrete was first used in Guayama. At present the time table for cementitious construction is unclear. The situation is further complicated by the tendency of homeowners to replace wooden porches early in the life span of the structure. Installing cement flooring on porches was one of the first improvements made to a wooden house.²⁸ Today wooden porches are relatively extinct in Guayama.

Hydraulic tiles known as losa criolla (creole tiles) are common decorative flooring for cement porches and house interiors. The designs are meant to imitate carpet with central patterns surrounded by a border (figure 3.7).²⁹ The first tiles were imported from Spain in the 1890's; only the wealthiest homeowners could afford the material. In 1911 local companies began manufacturing hydraulic tiles.³⁰ Ponce Mosaic ran an ad in the newspapers in 1912 with the slogan "no more wood floors".³¹ The tiles were customizable, relatively cheap, cool, durable, and highly colorful making them popular in Creole and vernacular houses. Hydraulic tile work remained fashionable until the 1960's.

27 Cueto, Beatriz del. *Puerto Rican Construction Traditions*. Print. p.1.

28Hernández, Navarro Mario Arturo., and Morán Hernán S. Bustelo. *Puerto Rico Tile Designs*. Amsterdam: Pepin/Agile Rabbit Editions, 2010. Print. p.20.

29 Hernández, Navarro Mario Arturo., and Morán Hernán S. Bustelo. p.20.

30 Hernández, Navarro Mario Arturo., and Morán Hernán S. Bustelo. p.17-18.

31 Hernández, Navarro Mario Arturo., and Morán Hernán S. Bustelo p.18.

3.2 Current Condition of Housing Stock

Wooden houses constructed in Puerto Rico prior to 1898 used native hardwood trees for all decorative and structural elements.³² Common species employed by builders included ironwood (ausubo), red-cotton silk, rainwood (carreto), lignumvitae (guayacan), yellow poui, Spanish elm, almond, and mahogany.³³ Ausubo was frequently used for structural members because of its resistance to rot and termites. The hardwood materials used in the construction of historic structures came from mature trees and were cut according to the lunar cycles; which contribute to their resilience.³⁴ In the late nineteenth century Puerto Rico began importing pine from the United States. The imported pine was susceptible to carpenter ants and termite infestation; making the structures constructed from these materials less durable than those built using native hardwood trees (figure 3.9). Correlations can be made between the condition of Guayama's wooden building stock and the materials source. Houses constructed prior to the importation of foreign wood are in better condition than those built with pine. It is not uncommon for houses built in the 1940s to have completely replaced much of their wooden siding and trim where as older more well maintained structures built as early as 1870 still retain their original material (figure 3.8).

This information is supported by the field observations performed by the author in February of 2011. Prior to visiting Guayama, 10 houses had been pre-selected for finish analysis to develop historic color palettes for the vernacular architecture of the city. Once on site it

32 Berthelot, Jack, and Martine Gaumé. *Kaz Antiyé: Jan Moun Ka Rété*. Goyave] (Maison Berthelot, Blonzac, F97128): Éd. Perspectives Créoles, 2002. Print. p.34.

33 Jopling, Carol F. p.66 and Martinez, Augusto. p.17.

34 Martinez, Augusto.p.14.

became apparent that many of the structures built between 1900- 1940 were missing original material that would have been sampled to determine the original paint schemes. Without original material to sample it is impossible to perform an accurate study. The author therefore chose to focus on structures constructed between 1870 and 1900 with limited alterations.

The wooden structures sampled for this study were constructed by wealthier inhabitants of the city. Over time they have been well maintained, painted frequently, and constructed from resilient materials which were all contributing factors for their selection.



Figure 3.1: Photograph of Vernacular Creole house. Note diagonal herringbone siding. (author)



Figure 3.2: Photograph of zinc siding panels commonly used on the side elevations of Vernacular Creole houses. The stamped pattern seen here is unique. Most panels used in Guayama are flat. (author)



Figure 3.3: Photograph of the exterior of typical 3-bay Vernacular Creole house. This house is located at 6 E. Cecelio Dominguez Street. (author)



Figure 3.4: Photograph of the interior of typical 3-bay Vernacular Creole house. This house is located at 6 E. Cecelio Dominguez Street. Note original decorative painting on the lower panels of the wall. (author)



Figure 3.5: Photograph of the exterior of Vernacular Creole house. This house is located at 4 E. Cecelio Dominguez Street. (author)



Figure 3.6: Photograph of the interior of Vernacular Creole house. This house is located at 4 E. Cecelio Dominguez Street. (author)

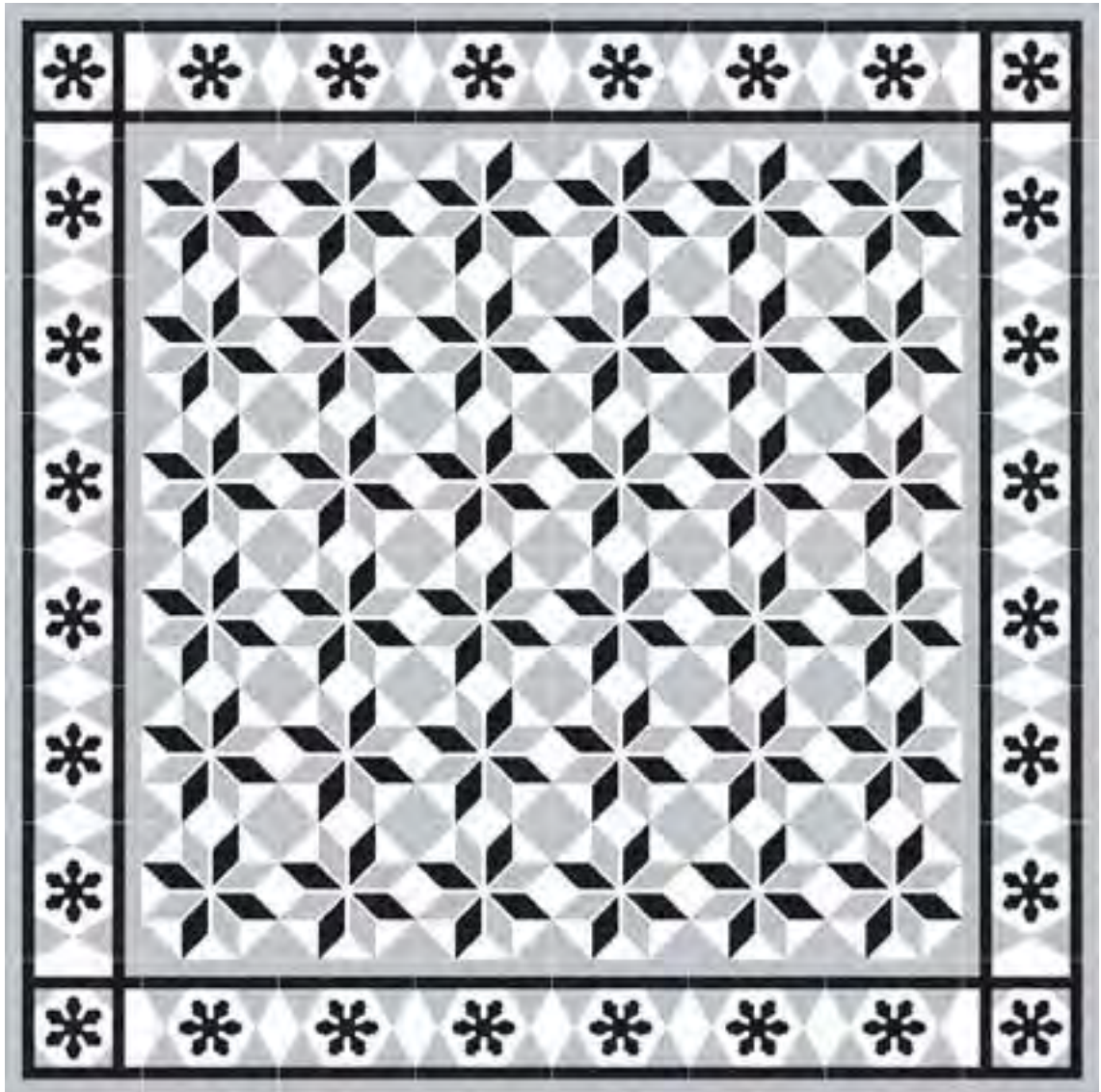


Figure 3.7: Example of hydraulic tile pattern, similar to one found in Guayama. (Hernández, Navarro Mario Arturo., and Morán Hernán S. Bustelo, 2010)



Figure 3.8: Photograph of paint detaching from wood paneling at 88 N. Santiago Palmer Street. (author)



Figure 3.9: Photograph of insect damage on a wood structural member; visible at far southern bay at the front elevation at 3 N. Ashford Street. (author)

4.0 Literature Review

Color has been used throughout history as a means of architectural articulation. The addition of paints is a traditional method of protecting and decorating exterior facades. Historians and conservators have made an effort to understand the chronological history of exterior paint technology and decorative trends in cities and regions over time. Questions of representation in cities with dense urban historic fabric have been the driving force for color palette research. This research has led to the development of color plans- a visual method of defining variety in architectural color palette. Previous publications describing architectural painting and the chromatic appearance of cities have relied heavily on archival research. In the recent past the methodology of color research has evolved to include the scientific analysis of physical fabric. This literary review will focus on recent color plan research and the methodologies employed to generate chronological decorative color palettes for a city or geographic region. Jean Phillip and Dominique Lenclos were one of the first to systematically examine groups of domestic vernacular buildings in an effort to understand the “visual habitat” of a geographic region.¹ In 1965 Jean Phillip Lenclos published *Couleurs de la France*, analyzing the colors of French Vernacular architecture.² Lenclos’s analysis focused on creating a “chromatography journey” through the cities he studied. His most recent book, *Colors of the World*, employs a method he has coined “geography of color”. He uses a combination of sampling, color calibration with color guides, photography, water colors, and color synthesis charts to under-

1 Lenclos, Dominique and Jean-Phillip. *Colors of the World: A Geography of Color*. W.W. Norton & Company, New York, 1999. Print. p.17.

2 Lenclos, Dominique and Jean-Phillip. p.18. Conflicting dates of publication were found for *Couleurs de la France*. The author stated that the research was completed in 1965.

stand *current* color palette. Lenclos looks deeper, drawing from historic documentation to examine “the palettes of diverse habitats to reveal how geology, climate, light, socio-cultural behavior, the traditions of local residents, and construction techniques uniquely shape a landscape’s architectural personality and chromatic character.”³ The major contribution from the Lenclos’s work lies in his ability to produce results in a “synthetic and modular form” using habitat vignettes (figure 4.1).⁴ The graphic depictions of the examined structures were aligned adjacent to one another in a diagrammatic to visualize the chromatic field of a building set. “The palettes made from these groupings illustrate the dominant colors of each of these elements (architectural features) and allows for the establishment of a visual statistic of the most utilized colors on site.”⁵ The Lenclos’s work provides a methodology for precise color documentation but they do not employ methods of analyzing the color evolution of the buildings. Their work provides a detailed methodology for understanding current regional color identity. Early methods of historic color research were heavily dependent upon archival sources. Archival research provides a baseline for understanding the chromatic history of a city, but the buildings themselves are the primary resource. Scientific methods of examining paint color over time were first employed by museums for the research of objects.⁶ In the recent past this form of analysis has been adopted as a complement to historic architectural color research. The early 1990’s, several color plan studies were conducted in historic cities around the

3 Lenclos, Dominique and Jean-Phillip. Book abstract.

4 Lenclos, Dominique and Jean-Phillip. p.18.

5 Lenclos, Dominique and Jean-Phillip. p.69.

6 Derek, Michele, Luiz Souza, Tanya Kieslich, Henry Florsheim, and Dusan Stulik. “Embedding Paint Cross-Section Samples in Polyester Resins: Problems and Solutions.” *Journal of the American Institute for Conservation* 33.3 (1994): 227-45. p.228.

world. Bente Lange authored two books: *Colors of Rome and Colors of Copenhagen*. Lange researched seeks to create a more comprehensive understanding of the city's past and present. Her methodology combined the use of written documentation, color depictions and paint analysis research for a large set of buildings. The work she conducted in these two cities used paint cross sectional analysis as a confirmatory method to determine whether historic color depictions were accurate. Two representative paint samples from each structure were examined and compared to historic color depictions of the buildings. If the two samples aligned with the archival image, assumptions were made that the remaining architectural features were depicted accurately by the artist. The use of paint cross sectional analysis added an additional layer of historical investigation. Previous methods of research were limited to original appearance (archival based information) and current color schemes. The addition of paint cross section analysis provided a stratigraphic depiction of color use over time.

In 1992 Frank Matero and Joel Snodgrass published a color study of New Orleans domestic architecture: *Understanding Regional Painting Traditions: The New Orleans Exterior Finishes Study*. Matero and Snodgrass were interested in determining a historically accurate painted finish palette for a historic urban center. The methodology presented in this article provides a comprehensive approach to color palette research, involving documentary source material, archaeological investigation, and a complete stratigraphic analysis of all primary architectural features on the building study set.⁷ Innovations in this research included: a systematic approach to the study of regional color palette by dividing houses according to typology and

⁷ Matero, Frank, and Joel C. Snodgrass. "Understanding Regional Painting Traditions: The New Orleans Exterior Finishes Study." *APT Bulletin* 2nd ser. 24.1 (1992): 36-52. Print. p. 36-38.

construction date in effort to better understand palettes over time. It was then determined whether variations can be seen in the diverse architectural fabric or if all styles employed the same decorative trends. A detailed historically derived color matrix was generated from scientifically based examination of physical fabric. Further material research was also conducted on pigments. Scientific pigment identification was undertaken in conjunction with color plan research. The authors used standard micro-chemical tests and normal and polarized microscopy for the pigment identification.⁸

In 2009, Richard Kjellstrom published his doctoral research: *Exterior Colours at Rural Dwellings in Southern Sweden during the 19th Century*. The methodology employed for his analysis of timbered houses and parishes is similar to past color research. He coins the term the ‘triangulated’ method which combines paint analysis, historic documentation, and scientific material analysis as tools for determining the existence of “local colors and coloring”.⁹ Kjellstrom was the first color researcher to employ Scanning Electron Microscopy with Energy Dispersive spectroscopy to characterize paint pigments on a regional scale. Kjellstrom includes representative photomicrographs of each building’s paint stratigraphies within the text. This is a rare practice but extremely useful in visualizing the evolution of color usage over time. Graphic representation of regional color palette is an important component of color research methodology. Determining the best means of disseminating the knowledge gained from the macro and micro investigation of paint samples must be translated into a form that the

8 Matero, Frank, and Joel C. Snodgrass. p.41.

9 Kjellstrom, Richard. “Local Colouring and Regional Identity: Colours on Buildings Exterior.” *AIC 2004 Color and Paints, Interim Meeting of the International Color Association, Proceedings 1*: 211-14. Web. p. 4.

public can understand. Francisco Lavecchia's *Il Colore: Il Metodo, Le Tecniche, I Materiali* and Marcella Morlacchi's *Roma, Il Colore Della Città: La Tutela Della Bellezza Dell'immagine Urbana* employ effective graphic techniques to visualize color changes to the built environment over time. Lavecchia utilizes a timeline based series of building elevations to visualize the chromatic changes. Lavecchia also introduces evolutionary mapping as a major visual component. Each structure is color-coded on a map according to its most dominant color feature (figure 4.2). This graphic technique allows one to understand the relationship of the buildings to one another and to observe specific areas of the city that are changing in color. This technique requires large study sets but lends itself to understanding not just relationships between typology and color, but also trends within geographic areas of the city. Morlacchi also uses mapping as a tool for visualizing building locations, but he does not integrate the results of his color research into the graphic depictions. As research moves away from paper documentation and into the digital age, a method of color translation from standard color systems such as Munsell to CMYK or RGB applications must be developed. Accurate graphic depictions of color schemes rely completely on determining a direct translation between these two systems. To date, no research has been conducted to create a guideline for color plan research.

4.1 Regional Research: Color Research in the Caribbean

The architectural color research of building exteriors in the Caribbean has been limited. *Kaz Antiyé: Jan Moun Ka Rété* is the only known color chart to look at traditional architecture in the Caribbean region.¹⁰ The survey of color in Kaz Antiyé focuses on the current color

¹⁰ Cueto, Beatriz Del. "Guayama." Message to the author. E-mail.

palette of Martinique (figure 4.3). The methodology of the chart generation is unknown, but it appears to be based on observations of current architectural palette.¹¹ The color chart is a useful comparison for other French colonies. Further analysis would need to be conducted to determine if the palette is comparable to Puerto Rico.

4.2 Local Color Research: Puerto Rico

Minimal research has been conducted to examine painted finishes in Puerto Rico. The architectural finishes from select, high profile public buildings are the only buildings to be examined with scientific methods of analysis. The architectural finishes at San Geronimo and Santa Elena Powder Magazines and the Rosario Chapel in the Iglesia San Jose were previously examined by University of Pennsylvania Historic Preservation graduate students. The 2000 publication *Il Colores de San Juan 151-1953: Investigacion Documental Sobre El Cromatismo De Los Edificos Publico y Civiles De le Cuidad de San Juan de Puerto Rico* was the first publication to focus solely on historic color use in Puerto Rican Architecture. Hector Santiago Carzull divides the building typologies of San Juan according to time period, and with the use of archival research develops a chronological history of color and painting techniques in San Juan. Photographs of paint exposures are included in the text, but the role and methodology of paint analysis is unclear. Carzull's painted finish research is limited to civic and public buildings. The limited number of extant examples of particular architectural styles in San Juan makes it difficult to characterize overall trends and color palettes.¹²

11 Berthelot, Jack, and Martine Gaumé. *Kaz Antiyé: Jan Moun Ka Rété*. Goyave] (Maison Berthelot, Blonzac, F97128): Éd. Perspectives Créoles, 2002. Print. p.112-113.

12 Carzull, Hector Santiago. *Il Colores de San Juan 151-1953: Investigacion Documental Sobre El Cromatismo De Los Edificos Publico y Civiles De le Cuidad de San Juan de Puerto Rico*. 2000. Translations from Spanish to English provided by Gladys Vega.

A chronological history of architectural finishes in domestic architecture exteriors has yet to be examined. The New Orleans exterior color survey may be a relevant comparative study for the houses constructed after trade relationships between the United States were established in 1898. There is a long documented link between the architectural styles found in New Orleans and Puerto Rico.¹³

13 Fernandez, Jose Antonio. *Architecture in Puerto Rico*. New York: Architectural Book Pub., 1965. Print. p.10.



Figure 4.1: Color Vignette of French vernacular architecture. Graphic by Jean Phillip Lenclos. (Lenclos, Dominique and Jean-Phillip, 2002)

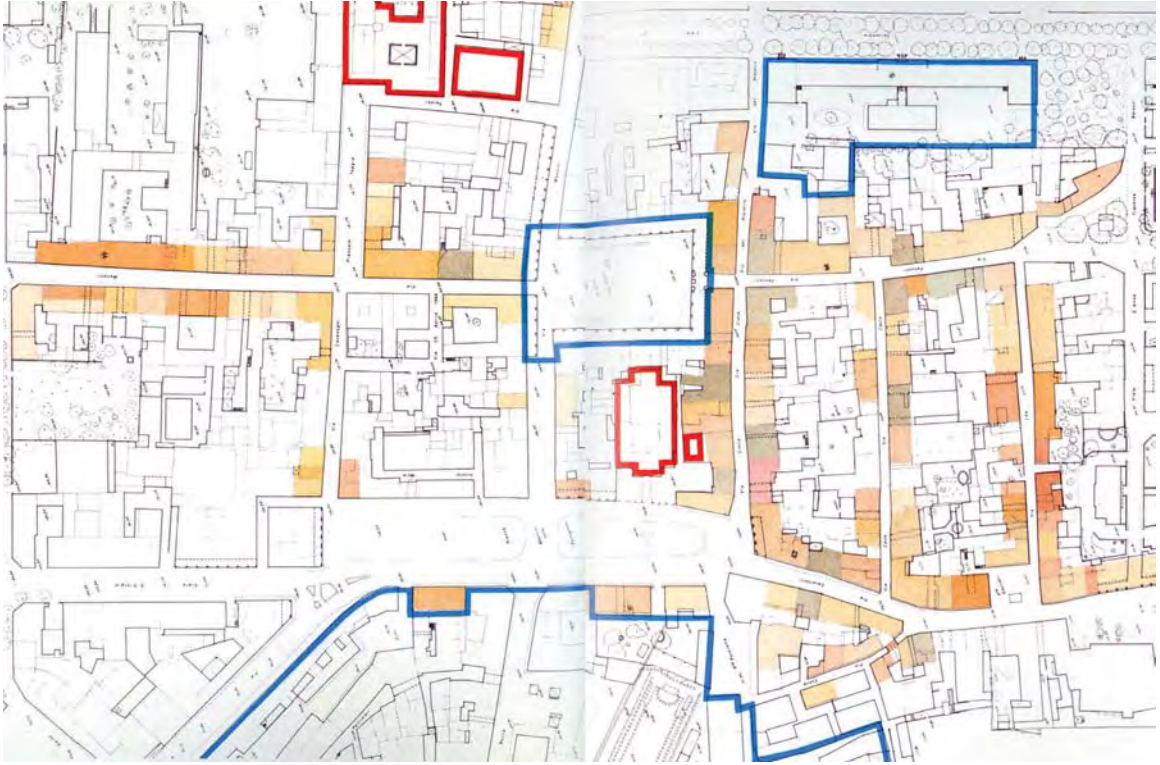


Figure 4.2: Map depicting results of color research. Graphic by Jean Francesco Lavecchia. (Lavecchia, 1985)



Figure 4.3: Color chart of current color palette on the island of Martinique. (Berthelot, Jack, and Martine Gaumé, 2002)

5.0 Testing Methodology for Finishes Analysis

5.1 Paint Analysis Research

Paint Analysis is the investigation of “accumulated layers of paint and other decorative finishes to provide insight into a buildings decorative history, structural development, and social history.”¹⁴ The goal of the current paint investigation is to identify the original exterior color palettes from a group of representative vernacular creole houses in Guayama, Puerto Rico. To best document the finishes employed in Pan-Caribbean domestic architecture, combined research must be conducted to examine historic documentary sources as well as the physical fabric of the structures. The building is the primary resource for understanding the role of color in the expression of the architectural form. Paint analysis of cross sections has been conducted to examine color usage over time. Historic documentation of domestic architecture in Guayama is limited to written records; very few photographs or graphic depictions exist of the residential streets. This research is therefore heavily concentrated on the physical evidence of the finishes: in-situ exposures, optical microscopy and instrumental analysis, interviews, and associated research.

5.2 Previous Paint Studies in Guayama

In 2004/2005 the Architectural Conservation Laboratory at the University of Pennsylvania and the New School of Architecture at the Polytechnic University of Puerto Rico collaborated to examine the historic color palettes of the creole houses of Guayama. Six houses located on North Santiago Palmer Street were studied to determine their original color schemes.

¹⁴ Hughes, Helen. *Layers of Understanding: Setting Standards for Architectural Paint Research*. Dorset: Donhead, 2002. Print. p.47.

Their research, *Colors Studies of the Architecture of Guayama*, documented each house through measured drawings. Paint samples from each exterior were also extracted and examined in thick section under reflected light microscopy.¹⁵ The methodology used for this study was sound, but findings were largely inconclusive.

This thesis was initially intended to revisit the structures used in the original study by confirming the previous findings and further examining the structures' physical evidence. In February of 2011 a site visit was made to Guayama with the intention of re-sampling the houses from the initial study, and expanding the study parameters to include houses of similar building typology from an earlier time period. Once on site it was determined that the paint stratigraphy and material integrity of the additional earlier houses were more complete. The focus of this finishes research shifted to include five new houses constructed from 1870-1900. The six original houses were re-sampled but are not included as part of this thesis. Maps outlining all structures sampled during the site visit are included in Appendix B. A master sample list of all samples extracted during the site visit can be found in Appendix E.

5.3 Site Selection

The architectural finish research focused on the wooden vernacular creole houses that dominate the town's historic zone. Houses were chosen based on material authenticity (i.e., original fabric), condition of architectural finishes, and intact paint stratigraphy. In order to establish clear relationships between color palettes and chronology, all houses were required to have historic documentation denoting their original construction date. Inventory sheets

¹⁵ *Color Studies of the Architecture of Guayama*. Rep. San Juan: New School of Architecture Polytechnic University of Puerto Rico, 2004-2005. p.21-96.

provided by Guayama's Downtown Historic Office were the major reference source for defining the chronological history of the structures.

The study scope initially included structures referenced in *Colors Studies of the Architecture of Guayama* (2005) as well as other relevant and historic structures located within the Guayama Historic Zone. Prior to arriving on site a preliminary list of representative residential houses was selected in collaboration with the Municipality of Guayama and local architects Diana Luna and Beatriz del Cueto. Preliminary selections located examples of three structures from three defined time periods. Original time frames were: 1870-1890, 1891-1910, and 1911-1940. The following houses were identified for preliminary analysis:

(1870-1890)

1. 4 E. Cecelio Dominguez: ~1860-1890
2. 6 E. Cecelio Dominguez: 1882
3. 48 N. Santiago Palmer: ~1890

(1890-1910)

4. 3 N. Ashford: ~1900 ¹⁶
5. 47 N. Santiago Palmer: 1890-1910
6. 88 N. Santiago Palmer: ~ 1900
7. 102 N. Santiago Palmer: ~1900
8. 103 N. Santiago Palmer: 1900
9. 104 N. Santiago Palmer: ~1910 ¹⁷
10. 106 N. Santiago Palmer: ~1910

¹⁶ "Guayama Architecture: Preservation and Historic Zone with Diana Luna." Personal Interview. 02 Feb. 2011. In discussions with Diana Luna; the original author of the historic zone inventory; discrepancies arose between the construction dates recorded in the Historic Zone Inventory. Construction dates of the structures were altered to reflect these inaccuracies. According to her historic investigations Ashford Street was not developed until closer to the 20th century. The 1872 date of construction was therefore inaccurate.

¹⁷ "Guayama Architecture: Preservation and Historic Zone with Diana Luna." Dates presented in Historic Zone Documentation were not accurate (1940); the "correct" date is reflected in the dates listed in the methodology.

(1910-1940)**11. 108 N. Santiago Palmer: ~ 1940**

After completing the preliminary list of sample locations, Diana Luna and the Municipality of Guayama contacted homeowners and facilitated access to the structures. Due to the nature of this study and the brevity of the site visit, not all structures within the pre-approved group were sampled. Instead, each structure was evaluated on site for material integrity. The houses appearing to be of predominantly original fabric were further evaluated. Paint exposures were used to determine the extent of remaining finish layers. Structures with intact paint stratigraphies were sampled. Prior to visiting the site the intention had been to sample structures from 1870 to the mid 1900's, but after further analysis in the field it was determined that there was more material integrity and paint evidence in the earlier structures. The focus then shifted to wooden residential buildings constructed from 1870-1900. Representative structures of both high and low style were sampled. The following houses located in the Municipality of Guayama were examined:

(1870-1900)

1. 48 N. Santiago Palmer: ~1890
2. 4 E. Cecelio Dominguez: ~1860-1890
3. 6 E. Cecelio Dominguez: 1882
4. 43 S. Ashford: 1871
5. 3 N. Ashford: ~1900

5.4 Building Information Database

Prior to arriving in Guayama for paint sampling, a building information database was created. This database recorded all site, historic and descriptive data associated with the pre-

liminary set of structures selected for finish evaluation. These data sheets were later used for recording all samples collected on site. Structural alterations and existing conditions were noted in-situ and incorporated into the database.

5.5 Sample Numbering

A uniform numbering system was developed to manage the large number of paint samples from multiple locations. This numbering system ensured that each sample taken from a building could be easily identified. The naming system consisted of one letter and two numbers. The combination of the three characters identifies the house location, sample type, and sample number.

Samples were recorded as follows:

House # : Feature: Sample #

101 : A : #

Examples of sample recording:

- A. Body/Walls
- B. Building Base
- C. Columns
- D. Porch Railing
- E. Porch Handrail
- F. Door
- G. Door Frame
- H. Cornice/Soffit
- I. Window Frame
- J. Window Sills
- K. Window Louvers/Shutters
- L. Ceiling

Detailed photographs were taken for all sample extraction locations. These photographs were then used to generate graphic elevations identifying each sample location. Additionally, each sample was recorded in-situ on sample recording sheets that included sketches of the extraction site. Multiple methods of recording sample locations limited inaccuracies.

5.6 Methods of Paint Investigation

In situ paint exposures and extraction were employed to investigate exterior architectural finishes. Both methods of analysis are semi-destructive. Paint exposures provide information on the paint history of a structure, but the results can only be recorded through low magnification, photographs and written descriptions. Paint samples extracted for cross-sectional analyses are permanent records; available for future study.¹⁸ The two methods of paint analysis have a symbiotic relationship, when combined it improves the accuracy of a study.

The dual investigative approach is also useful for color matching architectural finishes. It is not uncommon for paint to become discolored over time; therefore paint matching should never be done based on layers revealed through scraping only. When mechanically removing paint layers, some layers of paint can easily be missed. The combination of visual observation and instrumental analysis increases accurate reading of the sample. Individually, both methods can lead to inaccurate interpretation of the paint stratigraphy.

5.6.1 Paint Exposures

The accuracy of an architectural finishes analysis is dependent on choosing intact houses with full stratigraphies. Paint exposures proved instrumental in determining the best candi-

¹⁸ Hughes, Helen. p.202

dates for site sampling. Exposures were used as an intermediate step. They enabled on-site finish evaluation and reduced unnecessary sample processing. Preliminary exposures were performed in-situ on selected architectural elements to determine the presence of full paint stratigraphy. Using No.3 scalpel blades, paint layers were carefully removed layer-by-layer. Houses appearing to have intact paint stratigraphies were further sampled.

Additional exposures were made in instances of brittle paint, to ensure that samples with broken paint-to-substrate bonds contained all extant paint layers (figure 5.4). This method also proved helpful in understanding variation in samples. Several instances of scraped paint were found; where only residual paint layers remained. Crevices of door panels and concrete bases were common locations for inconsistent paint stratigraphy. These elements had variable surface topography, making complete paint removal difficult.

5.6.2 Sample Extraction for Cross-Sectional Analysis

Prior to sample removal, extraction sites were labeled with colored 3m dots indicating the house address (figure 5.1). Focusing on the porches (balconies) of each house, samples were extracted from wooden architectural elements (i.e. walls, bases, railings, columns, doors, windows, trim, and ceilings) (figures 5.2 and 5.3). When possible, samples were taken in areas protected from weather and human contact. Most of the houses examined for this study were privately owned; efforts were made to sample in a manner that did not affect the aesthetics of the wall. In some cases, however, it was necessary to take samples from highly visible locations.

In all instances care was given to include a portion of the substrate to orient the sample

during microscopic examination and ensure that all finish campaigns are present. Extracting intact samples from structures constructed of hardwood proved challenging. The density of the hardwood found at some sites in Guayama prevented the removal of paint samples with attached substrate. Other challenges of sample extraction included, chalking, broken bonds between paint layers, paint flaking, and incompatibility (latex paint on top of historic oil-based paints).

Typical samples measured 1 cm x 1cm square. The actual size of the sample depended on the condition of the surface. In instances where the paint layers were brittle, unstable, or broken, it was necessary to take several samples of the same element to ensure the removal of an intact cross section. Because a second site visit was not possible, a minimum of three samples were taken from each architectural element.

In each case paint samples were removed by first cutting parallel lines down to the substrate and then cross cutting. Once the perimeter cut was free from the surrounding field the scalpel was inserted underneath the bottom cut and thrust upward to free the sample from the element. The process of precutting the four sides of the sample reduced separation between finish and substrate. Loose samples were placed in manila envelopes with written descriptions of extraction location. Separated samples were first wrapped in blue painter's tape to prevent further fractures.

5.7 Drawings

Photographs taken during the site visit to Guayama were ortho-rectified using Perspective Rectifier® to produce scaled photographs of the sample sites. Ortho-rectified images were

then used as references to produce AutoCAD drawings for each of the structures sampled for the color plan study. These AutoCAD drawings served as the foundation for sample keys, extent building material diagrams, and for the hypothetical recreations of original paint schemes. Sample locations were recorded and mapped onto elevations to serve as references for analysis and possible future examination. Mapping sample locations on the elevation of each building served as a tool for understanding trends and variation in the structures paint stratigraphy when comparing cross-sections to one another. In addition, sample keys enabled quicker analysis of paint stratigraphy from element to element and across multiple buildings.

5.8 Instrumental Analysis: Finishes

5.8.1 Optical Light Microscopy

Optical microscopy of paint cross sections is a common method for finishes analysis, allowing one to observe opaque thick sections under reflective light. The method of thick sectioning positions the sample in a preferred orientation that reveals the strata of paint layers in chronological order. This form of analysis is advantageous because a great deal of information can be learned from a very small amount of material.¹⁹ Examination of a cross-section can reveal texture and color, thickness, sequence, variation of layers, and pigment size and dispersion within a binder. Distinctions between primer and finish coats can also be determined. This method of examination should always be used in conjunction with field observations. Optical microscopy does not replace surface examination conducted by the examiner on site. It serves as a means of corroborating what has been found by optical means, while providing a magnified level of detail.

¹⁹ Plesters, Joyce. P. 111-112

5.8.2 Sample Preparation: Embedding Paint Cross Sections for Microscopic Analysis

All samples extracted from the field were transported to the Architectural Conservation Laboratory at the University of Pennsylvania and prepared for microscopic analysis. Samples were preliminarily examined using a stereo-binocular microscope to select best candidates for cross-section analysis. Multiple samples were taken from representative architectural elements on the elevations during field sampling. Casting priority was given to intact samples with attached substrate. Of the 500 samples extracted in the field, 200 were processed into thick sections and analyzed (figure 5.5).

Selected paint samples were cast into small mini-ice cube trays using Bioplast® polyester monomer resin and methylethylketone (MEK) peroxide catalyst (figure 5.6). Bioplast® was the preferred mounding medium due to its transparency and stability. In addition the resin was relatively soft, making it compatible with the variable hardness of the paint samples. Prior to casting, tray cells were coated with Bueler mold release agent and allowed to dry for one hour under a 60 watt incandescent light. Coating cells before use reduces the probability of sample adhesion to the sample mold.

Samples were cast in two pours to prevent buoyant materials, such as the wood substrate, from floating to the surface. The first pour acts as a support layer for the sample. Once placed into the cells, the mounting medium was allowed to cure for 12-18 hours. Paint sections were then centered in each cell cube and covered with resin (figure 5.7). Small labels were cast in each sample. All sample labels were printed using toner based printers to prevent labels from bleeding into the casting medium (figure 5.8). Samples were allowed to cure for 7

days under a 60 watt incandescent light. Cure time varies greatly based on the temperature of the environment during sample set. Colder temperatures require longer cure. The amount of catalyst used in the Bioplast will also speed up or slow down cure.

Some of the structures sampled for this study were constructed of slow-growth hardwood trees. At times the density of the hardwood made it impossible to extract paint samples with attached substrate. As a result paint substrates had to be re-attached during the embedding process. Unattached buoyant substrates, such as wood, commonly float to the surface of the cube. In an effort to bind the paint layers and substrate together, small ribbons of Bioplast were drawn across unattached samples, creating a cocoon from the pre-set support layer. This extra layer of support greatly reduced the number of wood substrates floating to the surface of the Bioplast®. This system of binding was not visible after final set.

Once fully cured, samples were removed from the tray and sanded with 240 grit sandpaper to remove the meniscus. Sanding regularized the shape of the embedded sample cubes for sectioning. A Buehler Isomet® slow saw was used to cut the samples. Each sample cube was cut a minimum of two times to remove a representative cross section. Standard cross sections are between 1/16 – 1/8". Polishing was necessary to increase the clarity of the embedded paint layers and reduce saw marks from the sectioning process. The first polishing step was executed by hand using water and 0.3 µm gamma agglomerate alumina powder on a micro-cloth pad mounted on glass. Each face of the sample was polished for 1-2 minutes. Finish polishing was completed on an Ecomet machine using 0.05 gamma agglomerate alumina powder and water. Samples were then rinsed with deionized water and observed under the

stereomicroscope for residual scratches. Finish polishing was repeated until a shiny-mirror finish was achieved on both faces of the sample.

Polished samples were cleaned with Stoddard solvent and allowed to dry. Dry samples were placed on labeled glass slides using Cargille Meltmount. Prepared samples were then viewed on a Nikon AlphaPHOT-2 VS2 microscope using a quartz halogen reflective light, a daylight filter, and a pseudo-dark light illuminator. Day light filters, also known as neutral density filters, reduce transmitted light intensity evenly across a portion of the wavelength spectrum, neutralizing the blue effect caused by the halogen based illumination.²⁰ Photomicrographs of each sample were taken with a Nikon DS-Fi1 camera. Photomicrographs of the most representative samples are included in Appendix F.

5.8.3 Analysis and Observations

Paint cross sections were examined to identify a chronological history of the individual samples. In cases of multi-coat paint campaigns, primers and finish coats were identified wherever possible, usually through the presence of intra-layer dirt and fracturing. Original paint campaigns were established for each sample and color matched under a stereoscope at 11.5x using the Munsell Color Standard. The white paints varied more in chroma than the Munsell gradations could pick up, making it challenging to find an exact color match. Results of paint cross sectional analysis for the houses sampled in Guayama are described in Chapter 6: Observations and Interpretation of Paint Stratigraphy by Site Location.

20 <http://micro.magnet.fsu.edu/primer/photomicrography/colorfilters.html>. March 25, 2011.

5.8.4 Fluorescence Microscopy

Fluorescence microscopy is a method for studying any material which displays the phenomenon of auto-fluorescence in natural form or when treated with chemicals capable of fluorescing.²¹ Mounted paint cross sections can be observed under primary fluorescence without additional preparation. For the purposes of this investigation, primary fluorescence microscopy was used to improve the definition of paint stratigraphies in cross section; making separations between layers and schemes were more easily discernible. Paint cross sections were observed under primary fluorescence (auto-fluorescence) with a BV-1A filter block. The exciting light was purple (430-440 nm) and the emitting light was yellow/green (470 nm). This method of examination was especially helpful for samples containing many layers of white paint.

21 The University of Pennsylvania, Graduate Program in Historic Preservation. *Nikon Microscope and Fluorescence Microscopy Manual*. 2011. Philadelphia. p.7-9.



Figure 5.1: Photograph of sample extraction from a column capital at 6 E. Cecelio Dominguez Street. (author)



Figure 5.2: Photograph of sample extraction from a column capital at 43 S. Ashford Street. Ladders were used to access architectural features not accessible from the ground. (author)



Figure 5.3: Photograph of sample extraction from a door using a curved exacto blade at 3 S. Ashfrod Street.
(author)



Figure 5.4: Photograph of sample exposure adjacent to a door at 4 E. Cecelio Dominguez Street. Some early layers of paint were brittle, small exposures were made to ensure that all layers were included in the extracted sample. (author)

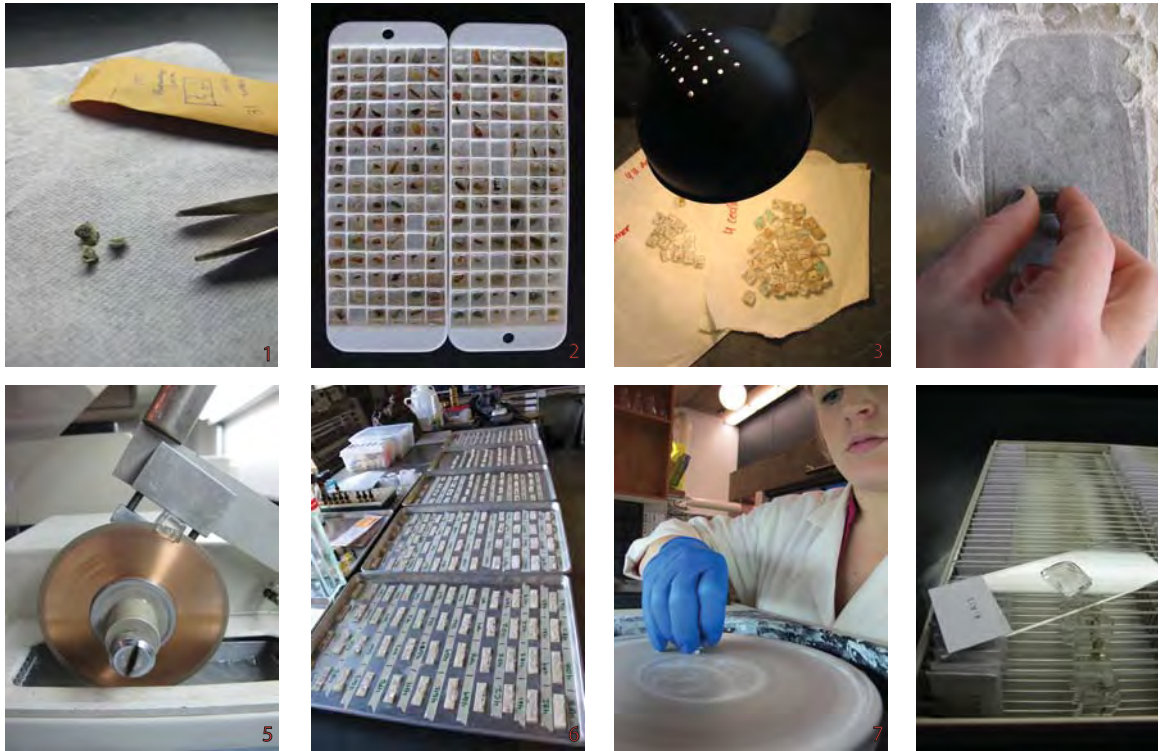


Figure 5.5: Photographs of cross-section paint sample preparation. The steps include: 1) selection of sample from multiple samples extracted from a single architectural feature 2) sample casting in small ice cubes using Bioplast resin 3) drying samples using 60w bulb 4) sanding meniscus off of dried sample 5) dividing cubes to reveal cross-section of paint sample using an Isomet slow saw 6) all cut samples organized by house for polishing 7) polishing samples on Ikomet using .005 8) paint cross sections mounted onto glass slides with Cargille meltmount. (author)



Figure 5.6: Close up photograph of paint samples cast in Biolplast resin. (author)

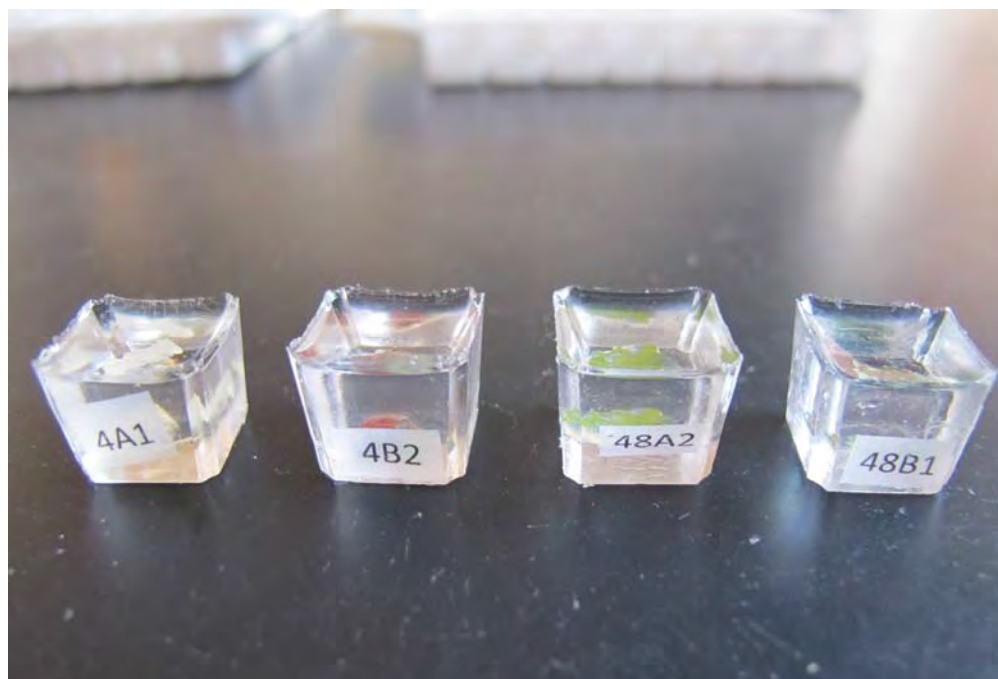


Figure 5.7: Photograph of paint sample cubes following removal from the mini ice cube trays. Note sample labeling is embedded into the sample. (author)

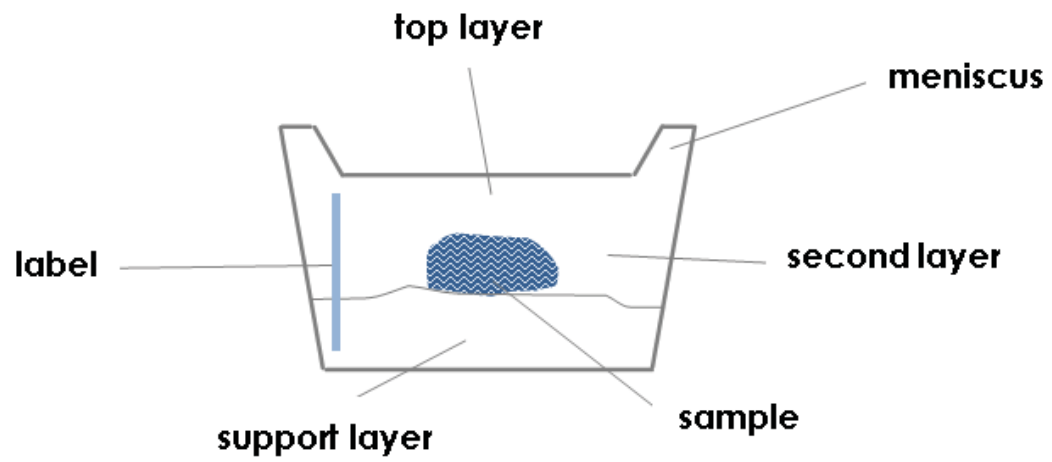


Figure 5.8: Diagram of casted paint sample denoting pour layers and embedded label. (diagram courtesy of Vicky Pingarron Alvarez)

6.0 Observations and Interpretation of Paint Stratigraphy by Site Location

The following chapter will discuss the results of the paint analysis research for the five creole houses sampled in Guayama. Paint stratigraphies from representative samples for each house can be found in Appendix F. The pigments and paint medium were not analyzed as part of this thesis research. Historic texts have been used to describe common paint materials and specialty finishes of the time period.

6.1 43 S. Ashford Street

The exterior appearance of 43 Ashford Street is simple in ornament. The flush siding boards and board and batten shutters are unusual features not commonly found in Guayama, especially in a house larger than three bays. Unlike most structures of the time period, 43 Ashford still retains the original wooden columns, balusters, and handrails.

The cross section paint evidence found on the exterior façade of 43 Ashford Street suggests that the wood siding was originally primed and finished with an off-white sanded paint.

Clear crystalline grains can be seen in the finish layer of the first paint campaign. The flush configuration of the wall's siding boards and the presence of sand grains in the paint indicate that the wall was originally intended to imitate masonry. It is very possible the overall wall was penciled to suggest stone blocks however this detail was not investigated. Wall baseboards were painted several shades darker than the wall and also contain clear angular grains.

Historic documentation indicates that imitation stone finishes were brought from Spain to San Juan in the 1860's.²²

22 Carzull, Hector Santiago. *Il Colores de San Juan 151-1953: Investigacion Documental Sobre El Cromatismo De Los Edificos Publico y Civiles De le Cuidad de San Juan de Puerto Rico*. 2000. Print.

The cornice and trim boards on the elevation were originally tints of white. Early white paint layers have blue pigment agglomerates. Blue pigments rather than lampblack were commonly used to subdue the harsh contrast of pure white colors. Doors and window frames appear to have been originally off-white. The cross section paint evidence indicates that the door and window shutters were originally painted different colors. The door shutters were painted a pink cream and the window shutters white. The second campaigns in both samples are yellow cream. The remainder of the paint stratigraphies is similar; indicating that for most of its finish history the house exterior retained the same color scheme. The shutters have over 30 layers of visible paint.

The first campaign of paint found on the concrete base is blue grey. Both the frame and panels are the same color. The color scheme of this element deviates from the monochromatic color schemes found on other structures in Guayama. This may be an indication that the porch was initially wood and then later modified to concrete.

The paint sample extracted from the column capital has 46 distinguishable layers. For almost all of their history the columns were painted tints of white. The initial decorative scheme for the columns was white with white handrails and pink cream balusters. The baluster color matches the original finish of the doors.

Early decorative schemes for this house were polychromatic. The middle paint history is relatively monochromatic, with most of the façade and balcony elements painted in white, off-white, and pale blues and yellows. There are between 9-36 paint campaigns found in the samples extracted from the house. Original paint campaigns were commonly 2-3 coats. The

columns and shutters appear to have been the focus of repainting. The remaining elements had an average of 14 decorative campaigns.

6.2 3 N. Ashford Street

The exterior decoration of 3 N. Ashford Street is highly ornate. Elaborate woodwork adorns the cornice, pediment, and ceiling. All woodwork is carefully crafted and includes many unique decorative trim patterns and designs. The cast iron columns, brackets and balustrade segments are original to the structure. Few structures in Guayama retain original cast iron.

The cross section paint evidence found on the exterior façade of 43 Ashford Street suggests that the wood siding was originally painted blue grey. Samples taken from various trim and door enframements reveal several campaigns of a pale off-white finish.

Green paint was used as a decorative accent color. The baseboards, doors, and ironwork all incorporate green paint in the first generation paint schemes. The stratigraphy of the baseboards indicates that green paint was used throughout the history of the building. The baseboards were painted more infrequently than many of the other original elements but the color schemes appear to correspond with trends observed in the stratigraphy of the columns and decorative panel trim. Thirteen paint campaigns can be observed in the cross section.

The door stiles, panels, and jalousies all show off-white original paint. Evidence of residual green paint was found on the upper and lower panels of the doors. The paint appears to have originally framed the raised panels. Exposures were performed on two sets of doors to confirm the presence of the green decorative detailing. The green accent layer was too disturbed to sample.

Paint evidence indicates that the first paint campaign for the building base was light blue grey. The finish matches the first generation wall color. The grey blues are similar in hue, but vary slightly in value. The samples extracted from the base of the structure have the least number of paint layers. Eleven paint campaigns can be seen in the sample. The first and second campaigns of the base are blue grey, but the color palette quickly shifts to green for the remainder of the paint stratigraphy. Unlike other structures in Guayama, 3 Ashford Street's porch is elevated less than 1ft from the ground. Residential buildings from this period were typically elevated much higher above the ground and would most likely have had wood porches initially. The shallow elevation of the porch would indicate that the concrete base may be original to the structure. The parallel first campaign paint schemes of the wall and base provide further evidence to this claim.

The columns and balusters are highly ornate cast iron. Both elements appear to be original to the structure. The columns have decorative brackets, flower joints, and a fluted base. The cross-section paint evidence suggests that the brackets and top flower joint were originally painted with an imitation patinated bronze finish. The four-coat finish consisted of an orange-gold primer, two coats of green paint, and a resinous golden flake finish. The resinous layer appears to contain thin plate-like lamellars that are copper in color. In the late 19c 'bronze powders' were made by beating thin sheet metal into flakes by hand. The term 'bronze powders' can refer to either copper alloy or aluminum flake.²³ Based on microscopic examination the flakes present in the column sample appear to be copper alloy, but further

23 Mattiello, Joseph J. *Protective and Decorative Coatings; Paints, Varnishes, Lacquers, and Inks*. New York: J. Wiley & Sons, 1941. Print. p.55.

testing would need to be performed to confirm the material composition. The body and base of the columns have a four-coat finish: brown orange primer, followed by two grey layers, and a green finish layer. No evidence of copper colored lamblers could be seen in the three samples extracted from the body and base of the column. The railings and cast iron balustrade show first generation silver colored metallic flake finishes. Varnishes were the preferred vehicle for metal flake finishes.²⁴ Transparent gold-colored varnish can be seen in both the railing and column samples. Following the first generation paint campaign the handrail is painted shades of white and off-white to match the trimwork of the façade. Mid-stratigraphy the baluster segments and columns are both painted with what appears to be aluminum flake.

The woodwork was painted almost completely monochromatic throughout the structures history. The trim boards have remained white, off-white, or lighter shades of cream. The walls reveal clear shifts in color trends. The first several generations of paints were values of grey blue, the color palette then changes to pink-creams and pink-greys. In the most recent past the house was painted shades of yellow and tan. First generation paints were mostly 3-coat oil-based finishes, except for the decorative finishes on the columns which were 4-coat. Averages of 20 paint campaigns were found on original elements.

Note: Evidence of reused material was found behind the siding boards. Reclaimed trompe l'oeil panels were discovered above the door at the far bay on the south side of the façade (figure 6.1)

²⁴ Mattiello, Joseph J. p. 562.

6.3 48 N. Santiago Palmer Street

48 N. Santiago Palmer Street is located on a corner lot. Unlike other houses of similar site configuration, both the front and side elevation have door openings. The side elevation has a series of four doors bounded by iron balconies. The doors do not access the street. Original decorative woodwork is still present on the cornice, ceiling, doors, pediments, and walls. The cross section paint evidence found on the exterior façade suggests that the wood siding was originally painted pink tan. Samples extracted from a side elevation have several layers of blue grey paint before aligning with the tan pink stratigraphy found on the front facade. Variations in the two elevations may be an indication that the front façade siding was altered early in its history. The herringbone siding was a possible later upgrade. The wood siding found on the front facades did not wrap all elevations. The side elevation is covered in ‘zinc’ flat panels, which is typical of vernacular houses from the period. A heavily pigmented yellow green primer was also found below the first blue grey paint layer. Historically high chroma paints have been used for priming metals to ensure that all surfaces of the potentially corrosive material are protected. The metal panels used at 48 Palmer Street were not examined for material composition.

Paint evidence found on the doors provides further evidence of alterations to the structure. Representative samples from of doors located on both the side and front elevation were examined. The sample stratigraphy indicates the side doors were originally finished with either a red or green paint. The well-bonded paint layers make it difficult to distinguish the first generation of paint. Brush marks and are visible on the green layer. There is no a break or dirt

layer evident between the red and green paint layers. The pigment particles found within the green paint are coarse and crystalline; which is characteristic of verdigris pigments. Further material testing would be required to characterize the pigment. Similar colored green paints were found in New Orleans from the same period.²⁵

Paint samples extracted from two doors on the front elevation were originally grained. The paint stratigraphies from the side elevation show graining in later stratigraphy. The doors from the front and side elevation appear to align after the appearance of the graining on the side elevation samples. One sample extracted from the front façade revealed residual paint layers similar to those found on the side façade. Graining can also be seen mid-stratigraphy in the samples from the handrail.

The graining found on the doors and handrails used a 4-coat system to create the illusion of real wood. The first layer known as the ground color was rust red. Brown and brown yellow paints were used for the second and third coats. The final layer is a semi-transparent golden brown. Traditionally waxes and glazes were used as top coats. The exact material composition of the pigments was not tested, but historical texts of the period indicated that yellow ochre, Venetian Red, burnt umber, burnt sienna, and Vandyke brown were all commonly used for graining.²⁶ The combination of paint layers is similar to mahogany or possibly oak graining. The exact recipes for the ground and graining color vary drastically, “each painter

25 Matero, Frank, and Joel C. Snodgrass. “Understanding Regional Painting Traditions: The New Orleans Exterior Finishes Study.” *APT Bulletin* 2nd ser. 24.1 (1992): 36-52. Print. p. 45.

26 Van Der Burg, A. R. & P. *School of Painting for the Imitation of Woods and Marbles*. London: Crosby Lockwood & Son, 1923. , and Wall, William E. *Practical Graining, with Description of Colors Employed and Tools Used ... House Painting and Decorating Pub.*, 1890. Print. p.7-8. References for graining colors was found in multiple texts. Those included here refer to texts from the same time period the house construction.

has their own way of preparing and mixing paints. Such being the case it is impossible to lay down any cast iron rule for the materials to be used in the representation of any wood or for the proper way to imitate wood.”²⁷

Evidence suggests that the door frames, cornice, and trim were painted off-white. The color of these elements remains similar throughout the history of the house. Slight variations can be seen in the color values.

The base of the building has only 3 layers of visible paint. This may be an indication that the concrete porch is not original to the structure. Green paint is present in the early paint stratigraphies of the balusters, base, and baseboard. The baseboard remains consistently green. Mid-stratigraphy the balusters shift to an aluminum flake finish. The galvanized pipe columns are not original to the house.

An average of 12 paint campaigns were found from samples extracted from the house. Some original elements appear to have been stripped or altered. The samples that were confirmed original with full stratigraphy have a higher average of 14. Original paint campaigns were typically 3-coats. Some 2-coat and 4-coat paint finishes were also used.

6.4 4 E. Cecelio Dominguez Street

The façade of 4 E. Cecelio Dominguez is composed of 5-bays. The central door with side-lights is flanked by two sets of doors. The five bay facade appears to have all of its original architectural features including the herringbone siding, doors, and decorative trim. The columns, railings, and balusters have all been replaced with concrete.

²⁷ Wall, William E. *Practical Graining, with Description of Colors Employed and Tools Used ...* House Painting and Decorating Pub., 1890. Print. p.9.

The cross section paint evidence suggests that the first generation color palette for the structure was various shades of grey and grey blues with off white trim. The walls of the structure were initially a medium grey, with a slight tint of blue. The baseboards are similar in color but vary in value. The trim and door frames of the house were initially painted off-white.

Blue inclusions are present in all early white and off-white finish stratigraphy.

The concrete building base is composed of a frame and recessed panels. Sample evidence indicates that the outer frame was originally painted blue grey. The first paint campaign for the inner panel was a lighter value of the outer frame color. The paints stratigraphies of the baseboard and base frame have very similar shifts in decorative expression. The walls and base panels also have parallel shifts in color.

The first paint campaign for the doors indicates the presence of graining. Samples were extracted from the door stiles, panels, and jalousies, all samples were originally finished with the same graining technique. To create a grained finish multiple layers of paint are overlaid and worked with graining tools to simulate the figures and colors found in wood. Slow drying oils and distempers are typically used.²⁸ The paint colors used to create the faux grain finish are similar to those found in period texts. The ordering of the paint layers deviates from recorded systems, therefore the type of wood grain is unknown.

Paint evidence indicates that the decorative palette of the building shifted over time. Early schemes for the house were blues and greys with white trim. The baseboard and building base color palette shift to shades of red and orange in mid-stratigraphy. Later paint stratigraphies

28 Audel, Theo. *Painting and Decorating Craftsman's Manual and Text Book*. Theo. Audel &, 1949. Print. p. 402.

of the element are lighter in color (pastels). The doors have first and second generation graining, but then move to a cream and pink palette. Later paint evidence indicates that the walls were lighter in color, mostly tans and crèmes. The trimwork remained shades of white. An average of 26 paint campaigns was found on the original elements. An average of 17 paint campaigns was found on replacement and altered material. Original paint campaigns were typically 3-coats. The current columns, railings, and balusters are not original to the structure.

6.5 6 E. Cecelio Dominguez Street

The exterior appearance of 6 E. Cecelio Dominguez is much simpler than other structures located on its block. The three-bay structure has few elements of decorative woodwork. Ornamentation is limited to the pierced wood transoms above each of the doors.

The cross section paint evidence found on the exterior façade suggests that the first and second paint campaigns for the wall were light green. Shades of cream were used to highlight elements of the façade. The baseboards, crown trim, decorative transom, and pediment above the doors were originally painted tan/creams. The door frames and ceiling trim were originally painted off-white. The doors on this structure have been replaced.

Of the three cross sections examined from the base of the building only one has a complete stratigraphy. Paint evidence indicates that the base panels were initially painted blue grey.

The dividers below each column currently have a frosted, texturized concrete finish. Samples extracted from this area have less paint layers than the panels. Later campaigns from both the panels and dividers align, signifying the finish is not original to the house.

The columns, railings, and balusters are not original to the structure. Paint stratigraphies found on these elements are similar to those found on the textured segments of the base below each column (figure 6.2). This may indicate that the alterations were made at the same time. The cornice of this house has been completely replaced. No decorative history is available for this element.

Very clear decorative trends can be seen in the paint stratigraphy at 4 Cecelio Dominguez. Early schemes were warm pale tints. Mid-stratigraphy a shift occurs and the paint palette becomes much darker. The walls, base, and columns were all values of high chroma green. The most recent paint campaigns are shades of yellows and shades of cream/off-white. The green decorative color scheme was in place in the 1970's, when the current owner purchased the house. An average of 19 paint campaigns was found on the original elements. An average of 10 paint campaigns was found on replacement and altered material. Original paint campaigns were typically 2-3-coats



Figure 6.1: Reclaimed tromp l'oeil panels were discovered above the door at the far bay on the south side of the façade at 3 S. Ashford Street. (author)



Figure 6.2: Photograph of altered building base at 6 E. Cecelio Dominguez Street. (author)

7.0 Conclusions: Comparative Analysis and Exterior Decorative Trends in Guayama's Vernacular Creole Houses (1870-1900)

Following the analysis of the individual paint stratigraphies, a comparative analysis of the surface finishes across all the houses was completed. Decorative trends and color variations in material and features were identified. Digital reconstructions of the original color palettes were generated using AutoCAD line drawings and Adobe Illustrator. Hypothetical color schemes for each house are referenced in Appendix G. A Color plan matrix synthesizing the color palette of all houses is in Appendix G.

7.1 Trends in Original Exterior Color

The architectural paint research conducted for this thesis identified the original colors used on a small yet architecturally representative sampling of late 19th century domestic wooden architecture in Guayama. The complex stratigraphies indicate that most of the elements sampled were original. Each of the houses yielded unique decorative schemes that shared common traditions. When combined as a group, repetitive colors and schemes can be seen across the sample sets and across architectural features. Together they provide a visual depiction of Guayama's historic streetscape during the late 19th century.

Though the house sampling was limited, it appears that the traditional color schemes of vernacular creole houses varied in complexity according to the scale and ornament of the house. Those houses with ornate woodwork relied less on color as a form of decorative expression, these houses appear to conform to a standard "model". All sampled houses appear to have been painted in poly-chromatic color schemes. The most common configuration was a com-

ination of grey blue walls, off white trim, and a darker grey blue base. Three of the houses employed this decorative scheme: 3 S. Ashford Street, 48 S. Palmer Street, and 4 E. Cecelio Dominguez Street. The imitation masonry house at 43 Ashford Street was bi-chromatic. The simplified color scheme creates a monolithic appearance. The walls, façade, and decorative elements of this house are all painted various values of off white. This was probably due to its intension to simulate stone masonry. The most diverse decorative scheme was employed on the simplest house: 6 E. Cecelio Dominguez Street. This small three-bay house used a four-color scheme.

The wood siding on the body of the house was the most diversely painted architectural feature as sampled from the front balcony walls of the five siding walls sampled, three were painted blue grey, one green, and one off-white. The most common color, blue grey, was painted a range of values. Correlations can be seen in the architectural style of the houses with the shared blue grey wall color. The green wall color was found at 6 E. Cecelio Dominguez, the smallest and least ornate house. The light colored, off-white wall color was applied with fine sand to imitate masonry.

Regardless of scale and ornament, all trimwork on the houses was painted pale white, off-white or light cream. Stratigraphies indicated that four of the five houses used a monochromatic palette for the trim boards, door frames, ceiling, and cornice. Once again the less ornate structure deviates from the common color palette by using a bi-chromatic color scheme of richly saturated creams and tan yellows. In all but one instance, the trim was lighter than the body of the building. The imitation masonry house deviates from this model.

Today most doors, frames, trimwork, and cornices are monochromatic. Traditionally, the doors would have been painted differently than the door frames and trim. A variation of finishes was found on the doors including graining, green and pink cream colored highlights. Most doors appear to have monochromatically painted panels, jalousies, stiles, and rails. 3 S. Ashford Street utilized a green accent color to outline the upper and lower door panels. Paint evidence indicates that all known original concrete balcony bases were painted with dark blue grey paints at origination. The remaining base, which appears to be a later modification, was painted dark green. The proximity to the street and potential for soiling from unpaved roads may have been the justification for painting the bases with darker colored materials. Similarities can be seen in the decorative palette of the walls and base, signifying that the concrete was probably original to the structures. Historic documentation indicates that concrete was available during the late 19th century, but the exact time line of use in domestic architecture is undocumented. This paint research provides evidence that concrete was being used in residential buildings as early as 1871 in Guayama.

It can be hypothesized that vernacular creole houses with ornate woodwork utilized color at the most basic level to articulate body from trim and special elements such as doors and windows and balcony fittings. They do not, like their North American wooden counterparts rely on a rich and complex color palette as a means of articulation. The articulation in the façade is dependent on the variation in the woodworking profiles. The woodwork itself is the focal point and is not embellished with colors. Simple houses create relief with the introduction of color. Bi-chromatic color schemes give simple elements depth. Sands were also used

as a means of manipulating a painted finish to create the appearance of textured surfaces, and thus creating the imitation of an expensive masonry building.

7.2 Painting Traditions and Techniques in turn of the 19th Century Guayama

Traditional painting techniques used in Guayama at the turn of the 19th century appear to have employed consistent techniques of paint application. Most of the paints examined were applied using a 3-coat system. White paints tended to have a slightly darker second coat of paint. Some specialty finishes employed a 4-coat system. White and off-white primers were common on wood substrates and some concrete. One example of yellow green primer was found on a zinc panel wall. Orange-red primers were found commonly on ironwork. Specialty finishes were a common decorative feature in vernacular creole architecture; indicating that skilled craftsman were working in Guayama. Graining, faux patinated bronze, and imitation masonry finishes all appear to have been used. Four of the five houses sampled employed specialty finishes at some point in their history. Most were original first campaign finishes. One house showed mid-stratigraphy graining. The small, three-bay house at 6 E. Cecelio Dominguez did not have paint evidence of faux finishing.

7.3 Color Palette Trends Over Time:

Domestic architecture evolves over time, elements are replaced, and exteriors are altered according to the modernizing trends of the day. Clear shifts in color use and alterations to the physical fabric can be interpreted through the varying layers of paint stratigraphy. Paint evidence in Guayama indicates that the most common alterations to the houses involved repainting the exterior facades and balcones. The next most common alteration was the re-

placement of columns, railings, and handrails. This information is confirmed in the historical documentation of the houses.

The original color schemes for most of the houses appear to remain over several paint campaigns. This method of repeatedly painting elements the same color over a period of time is evident in all of the houses. This trend can be seen most evidently in the three houses with the original blue grey color scheme. The paint colors used for the wall siding, cornice, door frames, and trim in each house align for most of their history. The pattern observed in the paint stratigraphies progresses over time from values of blue grey- to pink cream- to grey tan-to white and yellow. Most recent paint stratigraphy indicates the use of yellow, pinks, and off-white wall colors. Throughout history each of the houses altered the color palette similarly, indicating common trends in color use across the city.

The trim boards and door frames have the most consistent color palette of all the architectural features on the balconies. Stratigraphic paint evidence indicates that white and off-white paints have remained popular throughout the history of the buildings. A brief trend in dark brown and cream trimwork can be seen in some of the houses.

Several clear shifts in color palette can also be seen in other specific architectural features. They include; 1) doors become white, today most are painted the same color as the trim 2) cornices become more polychromatic 3) building bases shift from mainly monochromatic decorative schemes to some two-color systems 4) replacement of iron balusters painted with what appears to be aluminum flake.

Many of the houses sampled have elements that have been altered or replaced. The color

green is a common first campaign paint scheme for modified and new architectural features such as replacement bases, columns, and iron baluster segments. The trend in color use across replacement material indicates that structural alterations may have occurred during a similar time period.

The exterior decorative trends of vernacular creole houses in Guayama have changed over time. The color combinations appear to have followed similar patterns and timelines. Some architectural features have remained true to the memory of their original decorative expression, while others are completely altered. Today, large scale vernacular creole houses are painted with pastel palettes. Smaller 3-bay houses still remain dependent on higher chroma paints as a means of architectural articulation.

8.0 Recommendations:

The research conducted for this thesis focused on the original finishes of creole houses constructed between 1870-1900 in Guayama. Further research is needed to date non-original paint campaigns and to identify the material composition of historic finishes. Optical and Scanning Electron Microscopy with Energy Dispersive spectroscopy could be used as well as Raman Spectroscopy to characterize the colorants present in the paint.¹ The chronological history of paint pigments is well documented and can be a useful tool for dating decorative schemes. FTIR analysis could be used to identify the binding media. The elemental analysis of stratigraphic paint layers could be examined to further indicate the timeline and materials used in Puerto Rican domestic architecture.

Further archival research needs to be conducted to investigate late 19th century construction regulations. Construction regulations of the time period regulated architectural aesthetics. Material details, including recommendations for paints and decorative finishes are included in these historic documents.² These may provide insight into color schemes from this time period, as well as those that have yet to be examined.

Five additional houses from a later time period were also sampled as part of this thesis research. Future color research in Guayama should include the examination of these samples.

The introduction of a broader study set from other regions of Puerto Rico could provide an understanding of historic color palettes on a national scale. In addition, houses of similar

1 Welsh, Frank S. "Who Is an Historic Paint Analyst? A Call for Standards." *APT Bulletin* 18.4 (1986): 4-5. p.5.

2 Carzull, Hector Santiago. *Il Colores de San Juan 151-1953: Investigacion Documental Sobre El Cromatismo De Los Edificos Publico y Civiles De le Ciudad de San Juan de Puerto Rico*. 2000. Print. Document translated by Gladysa Vega.

building typology could be sampled from other towns along the southern coast to develop a regional color palette.

Bibliography

Architectural Style:

- Algeria, Ricardo E. "History of Preservation and Restoration of the San Juan de Puerto Rico Historic Zone." *International Symposium on Historic Preservation for Puerto Rico and the Caribbean Third International Symposium of Historic Preservation on Puerto Rico and the Caribbean*. San Juan: May 9-13, 1994. Print.
- Berthelot, Jack, and Martine Gaumé. *Kaz Antiyé: Jan Moun Ka Rété*. Goyave] (Maison Berthelot, Blonzac, F97128): Ed. Perspectives Créoles, 2002. Print.
- Buisseret, David. *Historic Architecture of the Caribbean*. London: Heinemann, 1980. Print.
- Crain, Edward E. *Historic Architecture in the Caribbean Islands*. Gainesville: University of Florida, 1994. Print.
- Colon Mendoza, Hector Luis, and Diana Luna. *Application to the Institute of Puerto Rican Culture for Historic Zone Status: Guayama*. Application for Historic Zone Designation: Puerto Rico. Guayama: Municipality of Guayama, 1991. Print.
- Cueto, Beatriz del. *Puerto Rican Construction Traditions*. Print.
- Edwards, Jay Dearborn. *The Origins of Creole Architecture*. [Winterthur, Del.]: Henry Francis Du Pont Winterthur Museum, 1994. Print.
- Fernandez, Jose Antonio. *Architecture in Puerto Rico*. New York: Architectural Book Pub., 1965. Print.
- "Guayama Architecture: Materials Discussion with David Gonzales." Personal interview. 02 Feb. 14.
- "Guayama Architecture: Preservation and Historic Zone with Diana Luna." Personal interview. 02 Feb. 2011.
- "Hernández, Navarro Mario Arturo., and Morán Hernán S. Bustelo. *Puerto Rico Tile Designs*. Amsterdam: Pepin/Agile Rabbit Editions, 2010. Print.
- Jopling, Carol F. *Puerto Rican Houses: in Sociohistorical Perspective*. Knoxville: University of Tennessee, 1992. Print.
- Martinez, Augusto. "Materials and Construction Techniques in Caribbean Architecture during the Sixteenth to Eighteenth Centuries: Recommendations for their Conservation." *International Symposium on Historic Preservation for Puerto Rico and the Caribbean Third International Symposium of Historic Preservation on Puerto Rico and the Caribbean*. San Juan: May 9-13, 1994. Print.

Rigau, Jorge. *Puerto Rico 1900: Turn-of-the-century Architecture in the Hispanic Caribbean, 1890-1930*. New York: Rizzoli, 1992. Print.

Slesin, Suzanne, and Gilles De. Chabaneix. *Caribbean Style*. New York: C.N. Potter, 1985. Print.

San Juan Tras La Fachada: Una Mirada Desde Sus Espacios Ocultos (1508-1900). San Juan: Instituto De Cultura Puertorriquena, 2003. Print.

Finishes Studies: Methodology and Analysis:

Alba, Almyr M. *Architectural Exterior Finishes in the Spanish Caribbean. Case Studies: San Geronimo and Santa Elena Powder Magazines*. 1995. Print.

Barba, Carlos, Margarita San Andrés,, Javier Peinado, Maria Isabel Báez, and Juan Luis Baldonado. "A Note on the Characterization of Paint Layers by Transmission Electron Microscopy." *Studies in Conservation*, 40.3 (1995): 194-200. Print.

Baty, Patrick. "The Role of Paint Analysis in Historic Interiors." *The Journal of Architectural Conservation* (1995): 27-37. Print.

Bregnhøi, L. ., H. ., Hughes, J. ., Lindbom, T. ., Olstad, and E. ., Verweij. *Paint Research in Building Conservation*. London: Archetype, 2006. Print.

Brewer, James G., and David Q. Bird. "Paint Comparison. A Method for the Preparation of Cross Sections of Paint Chips." *Journal of Criminal Law and Criminology* 40.2 (1949): 230-35. Print.

Butler, Edward M. "The Examination of Paint with the Electron Microprobe." *The Journal of Criminal Law, Criminology, and Police Science* 58.4 (1967): 596-602. Print.

Derek, Michele, Luiz Souza, Tanya Kieslich, Henry Florsheim, and Dusan Stulik. "Embedding Paint Cross-Section Samples in Polyester Resins: Problems and Solutions." *Journal of the American Institute for Conservation* 33.3 (1994): 227-45. Print.

Doonan, Nancy Locke. "Historic Exterior Paints: Guidelines for Establishing Whether a Sample Contains a Layer Original to the Building's Construction." *Bulletin of the Association for Preservation Technology*, 14.2 (1982): 26-29. Print.

Gardner, Henry A., and George G. Sward. *Paint Testing Manual: Physical and Chemical Examination of Paints, Varnishes, Lacquers, and Colors*. Bethesda, MD: Gardner Laboratory, 1962. Print.

Haar, Elzinga-Ter. "On the Use of the Electron Microprobe in Analysis of Cross-Sections of Paint Samples." *Studies in Conservation*, 16.2 (1971): 44-55. Print.

Hughes, Helen. *Layers of Understanding: Setting Standards for Architectural Paint Research*. Dorset: Donhead, 2002. Print.

- Johnston, Kerry Lenehan. *Free Neoclassicism and Interior Architectural Surface Finishes: the Investigation, Analysis and Interpretation of William Strickland's St. John's Episcopal Church, Philadelphia*. 2007. Print.
- Krotzer, Dorothy S. "Architectural Finishes: Research and Analysis." *Bulletin of the Association for Preservation Technology* 39.2 (2008): 1-6. Print.
- Milley, John. "Experimental Paint Color Research with Solvents at Independence National Historic Park." *Bulletin of the Association for Preservation Technology* 1.2 (1969): 19-20. Print.
- Perrault, Carole L. "Techniques Employed at the North Atlantic Historic Preservation Center for the Sampling and Analysis of Historic Architectural Paints and Finishes." *Bulletin of the Association for Preservation Technology* 10.2 (1978): 6-46. Print.
- Phillips, Morgan W., and Norman R. Weiss. "Some Notes on Paint Research and Reproduction." *Bulletin of the Association for Preservation Technology* 7.4 (1975): 14-19. Print.
- Plesters, Joyce. "Cross-Sections and Chemical Analysis of Paint Samples." *Studies in Conservation*, 2.3 (1956): 110-57. Print.
- Rossi, Aldo. *The Architecture of the City*. Cambridge, Mass [u.a.: MIT, 2002. Print.
- The University of Pennsylvania, Graduate Program in Historic Preservation. *Nikon Microscope and Fluorescence Microscopy Manual*. 2011. Philadelphia.
- Tsang, Jia-Sun, and Roland H. Cunningham. "Some Improvements in the Study of Cross Sections." *Journal of the American Institute for Conservation* 30.2 (1991): 163-77. Print.
- Wachowiak Jr., Melvin J. "Efficient New Methods for Embedding Paint and Varnish Samples for Microscopy." *Journal of the American Institute for Conservation* 43.3 (2004): 205-26. Print.
- Welsh, Frank S. "Paint Analysis." *Bulletin of the Association for Preservation Technology* 14.4 (1982): 29-30. Print.
- Welsh, Frank S. "Who Is an Historic Paint Analyst? A Call for Standards." *APT Bulletin* 18.4 (1986): 4-5. Print.
- West, Elisabeth H. "A Ring-Mount for Micro-Cross-Sections of Paint and Other Materials." *Studies in Conservation*, 4.1 (1959): 27-31. Print.

Color Plans:

- Brino, Giovanni. *Colore E Territorio: La Banca Dati Dei Colori Del Piemonte*. [Torino]: Idea, 1985. Print.

- Carzull, Hector Santiago. *Il Colores de San Juan 151-1953: Investigacion Documental Sobre El Cromatismo De Los Edificos Publico y Civiles De le Cuidad de San Juan de Puerto Rico*. 2000. Print.
- “Colour as Idea: The Conceptual Basis for Using Colour in Architecture and Urban Design.” *Colour: Design & Creativity - Home*. Web. 30 Nov. 2010. <<http://www.colour-journal.org/2008/2/3/index.htm>>.
- Gage, John. *Color and Culture: Practice and Meaning from Antiquity to Abstraction*. Berkeley: University of California, 1993. Print.
- Kjellstrom, Richard. *Exterior Colours at Rural Dwellings in Southern Sweden during the 19th Century*. Lund University, 2009. Print.
- Kjellstrom, Richard. “Local Colouring and Regional Identity: Colours on Buildings Exterior.” AIC 2004 Color and Paints, Interim Meeting of the International Color Association, Proceedings 1: 211-14.
- Lange, Bente. *The Colours of Copenhagen*. [Copenhagen]: Royal Danish Academy of Fine Arts, School of Architecture, 1997. Print.
- Lange, Bente. *The Colours of Rome*. [s.l.]: Danish Architectural, 1995. Print.
- Lavecchia, Francesco. *Il Colore: Il Metodo, Le Tecniche, I Materiali*. Modena: Panini, 1985. Print.
- Lenclos, Dominique and Jean-Phillip. *Colors of the World: A Geography of Color*. W.W. Norton & Company, New York, 1999. Print.
- Matero, Frank, and Joel C. Snodgrass. “Understanding Regional Painting Traditions: The New Orleans Exterior Finishes Study.” *APT Bulletin* 2nd ser. 24.1 (1992): 36-52. Print.
- Minah, Galen. “Colour as Idea: The Conceptual Basis for Using Colour in Architecture and Urban Design.” *Colour Journal* 2 (2008). Print.
- Morlacchi, Marcella. *Roma, Il Colore Della Città: La Tutela Della Bellezza Dell'immagine Urbana*. Roma: Gangemi, 2010. Print.
- Morlacchi, Marcella. *Colore E Architettura: Il Linguaggio Del Colore Nel Disegno Delle Superfici Architettoniche*. Roma: Gangemi, 2003. Print.
- Moss, Roger W. *Paint in America: the Colors of Historic Buildings*. Washington, D.C.: Preservation, National Trust for Historic Preservation, 1994. Print.
- Moss, Roger W. *Century of Color: Exterior Decoration for American Buildings, 1820-1920*. Watkins Glen, NY: American Life Foundation, 1981. Print.
- Pecchioli, Eleonora, and Antonio Quattrone. *The Painted Façades of Florence: from the Fifteenth*

to the Twentieth Century. Florence [Italy: Centro Di, 2005. Print.

Color Studies of the Architecture of Guayama. Rep. San Juan: New School of Architecture Polytechnic University of Puerto Rico, 2004-2005.

Finishes: Materials and Technology:

Painting and Decorating Contractors of America. *Painting and Decorating Craftsman's Manual and Text Book*. Theo. Chicago: Theo Audel & Company, 1949. Print.

Bevil, Marianne, Meredith Fiske, and Anne-Leslie Owens. *Painting Historic Buildings Materials and Techniques : an Annotated Bibliography*. Washington, D.C.: U.S. Dept. of the Interior, National Park Service, Preservation Assistance Division, 1993. Print.

Bristow, Ian C. *Interior House-painting Colours and Technology: 1615 - 1840*. New Haven [u.a.: Yale Univ., 1996. Print.

Candee, Richard M. *Housepaints in Colonial America: Their Materials, Manufacture and Application*. New York, NY: Chromatic, 1966. Print.

Dorge, Valérie, and F. Carey. Howlett. *Painted Wood: History and Conservation : Proceedings of a Symposium Organized by the Wooden Artifacts Group of the American Institute for Conservation of Historic and Artistic Works and the Foundation of the AIC, Held at the Colonial Williamsburg Foundation, Williamsburg, Virginia, 11-14 November 1994*. Los Angeles: Getty Conservation Institute, 1998. Print.

Eastaugh, Nicholas, Valentine Walsh, and Tracey Chaplin. *The Pigment Compendium a Dictionary of Historical Pigments*. Amsterdam: Elsevier, 2004. Print.

Mattiello, Joseph J. *Protective and Decorative Coatings; Paints, Varnishes, Lacquers, and Inks*. New York: J. Wiley & Sons, 1941. Print.

"Paint Color Research and House Painting Practices." *Newsletter of the Association for Preservation Technology* 1.2 (1969): 5-20. Print.

Reynolds, Hezekiah, and Richard M. Candee. *Directions for House and Ship Painting. A Facsimile Reprint of the 1812 Edition with a New Introduction by Richard M. Candee*. Worcester, MA: American Antiquarian Society, 1978. Print.

Van Der Burg, A. R. & P. *School of Painting for the Imitation of Woods and Marbles*. London: Crosby Lockwood & Son, 1923. Print.

Wall, William E. *Practical Graining, with Description of Colors Employed and Tools Used*. House Painting and Decorating Pub., 1890. Print.

APPENDIX A: GLOSSARY OF TERMS

GLOSSARY OF TERMS

- **Vernacular architecture** - Architecture that is constructed with local materials and resources and is designed to reflect the cultural and historical context in which it was built.
- **Paint Analysis Research** - The investigation of “accumulated layers of paint and other decorative finishes to provide insight into a buildings decorative history, structural development, and social history.”¹
- **Paint** - A mixture or dispersion of pigments or powders in a liquid or vehicle.² Paint is made up of four principle component parts, which by their individual properties and their relationship to each other compromise the essential elements of protective, decorative, and functional coatings. Component parts include: Pigment, binder or vehicle, thinner or solvent, and drier.³ Thinner or solvent and driers are not essential elements of paint; they may or may not be present in a given mixture.
- **Binder** - The non-volatile portion of a paint which serves to bind or cement the pigment particle together. Oils, varnishes, and proteins are examples of binders.⁴
- **Oil Binder** - Oil of vegetable origin which hardens to tough, solid film after a period of exposure to oxygen from the air.
- **Mineral Pigment** – Inorganic ground mineralic materials in the form of fine powders substantially insoluble in oils, varnishes, lacquers, thinners, and the like. Used to impart color, opacity, certain consistency characteristics and other effects.⁵
- **Primer**- The first coat in any painting operation. ⁶
- **Ground Coat** - The coating material which is applied before the graining colors, glazing, and other finish coat.⁷
- **Glazing** - A process of applying transparent or translucent coatings over a painted surface to produce blended effects.⁸

¹ Hughes, Helen. *Layers of Understanding: Setting Standards for Architectural Paint Research*. Dorset: Donhead, 2002. Print. p.47.

² Painting and Decorating Contractors of America. *Painting and Decorating Craftsman's Manual and Text Book*. Theo. Chicago: Theo Audel & Company, 1949. P. 406.

³ Painting and Decorating Craftsman Manual and Textbook. p.11-12

⁴ Painting and Decorating Craftsman Manual and Textbook. P.397

⁵ Painting and Decorating Craftsman Manual and Textbook. P.406

⁶ Painting and Decorating Craftsman Manual and Textbook. P.406

⁷ Painting and Decorating Craftsman Manual and Textbook. P.402

- **Anti-Corrosive Paint** - Paint designed to inhibit corrosion and rusting of metals. Applied directly to the metal, usually as a primer for finish coats.⁹
- **Graining**- Simulating the grain of wood by means of specialty prepared color or stain and graining tools. Typically done with slow drying oil paints or distempers.¹⁰
- **Exposure (scrape)** - Mechanical method of revealing of revealing paint in a series of stepped layers.
- **Paint Cross-Section** - A method of mounting a paint sample in a casting medium and then cross-sectioning the sample to examine under a microscope.
- **Color scheme**- Analogous with a paint campaign. The term refers to the ensemble of finishes applied at one time to a structure.
- **Photomicrograph**- A photograph of a small object seen through a microscope at high levels of magnification.
- **Daylight Filter (Neutral Density Filter)** - Neutral Density or ND filters reduce light levels to the minimum needed for observation under a microscope.
- **Dark-light Illuminator**- Dark-light Illumination provides uniform dark field illumination through glass microscope slides. Vertical illumination is replaced by a light source imbedded inside a specifically designed fiber optic slide holder which fits most microscope stages, turning the slide into a light pipe.¹¹
- **Fluorescence Microscopy**- a method for microscopically studying material which can be made to fluoresce whether in natural form or when treated with chemicals capable of fluorescing. For conservation purposes it is usually used to investigate the presence of organic and inorganic materials by observing their auto- and secondary fluorescence. It is also useful for characterizing materials (organic or inorganic) and improving or altering the definition of materials (such as stratigraphy of cross section samples).¹²

⁹ Painting and Decorating Craftsman Manual and Textbook. P.396

¹⁰ Painting and Decorating Craftsman Manual and Textbook. P.402

¹¹ The University of Pennsylvania, Graduate Program in Historic Preservation. *Nikon Microscope and Fluorescence Microscopy Manual*. 2011. Philadelphia. p.2.

¹² *Nikon Microscope and Fluorescence Microscopy Manual*, p.7.

APPENDIX B: MAPS



Map of Houses Selected for Paint Sample Extraction (graphic by author)

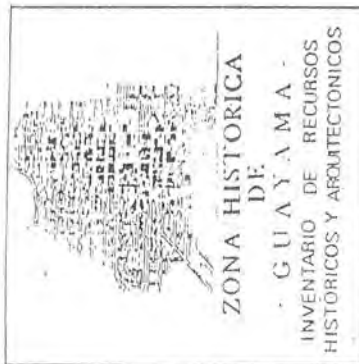


Map of Houses Selected for Full Investigation (graphic by author)



Map of Houses Selected for Full Paint Investigation (graphic by author)

APPENDIX C: HISTORIC DOCUMENTATION



DUEÑO	
NOMBRE ACTUAL	Rafael Roca
NOMBRE COMUN	
NOMBRE HISTORICO	PROFESISTAS
FECHA DE CONSTRUCCION 1890 - 1960	EXACTA
DISEÑADOR	X APROXIMADA
CONSTRUCCION	
ESTILO	
ACCESIBILIDAD	
Merce Roca en San Juan	
PREPARADO POR	FECHA
Diana Luna	30 julio 1991



Eligible

N.M. DE CATASTRO	DIRECCION
420 032 061 003	Cecilia Dominguez
MAPA DE LOCALIZACION	

DESCRIPCION	
Estructura en madera balcón corrido, en hormigón- combiera, fachada alineada a acera. Postes en hormigón. Patio y balaustres.	
USO HISTORICO	ISO ACTUAL
Vivienda	Vivienda
N.M. DE PISOS	AREA INURABLE
1	
AREA DE SOLAR	ZONIFICACION
15.5 x 25.0	R-4
AREA DE EDIFICIO	OTRAS RESTRICCIONES
26.545	P.O. 716.76
SOLAR	PROPIO
1935	MUNICIPAL

HISTORIAL

CONDICION DE ELEMENTOS DE LA ESTRUCTURA

ALTERADO

ORIGINAL

BUENO

REGULAR

MAIO

GRAN DETERIORO

MATERIAL

CIMENTOS

SOLANOS

PISO NIVEL 1

PAREDES NIVEL 1

COLUMNAS NIVEL 1

PLAFON NIVEL 1

PISO NIVEL ALTO

PARED NIVEL ALTO

PLAFON NIVEL ALTO

SETOS INTERIORES NIVEL 1

SETOS INTERIORES ALTOS

TECHO

PUERTAS INTERIORES

PUERTAS EXTERIORES

PLAFON EXTERIAL

ANTEPECHOS

GALERIA POSTERIOR

VENTANAS

MONTANTES, VENTILADORES

MEDIOPUNTO

ESCALERA PRINCIPAL

ESCALERA SECUNDARIA

ALTIPE

Hormigón

N/A

Hormigón

Madera

Madera

Madera

N/A

N/A

N/A

Madera

N/A

Zinc

Madera

Madera

Hormigón

N/A

Madera

Madera

N/A

Madera

N/A

N/A

NUM. DE CATASIO

420 032 061 003

DIRECCION

Cecilia Dominguez

HISTORIAL DE ALTERACIONES

Ventanas, Plafón.
Esta conservada original

DETERIORO EXISTENTE

Bastante Cuidada

SIGNIFICADO

X HISTORICO

X ARTISTICO

AMENITAL

ARQUITECTONICO

EXPLIQUE BREVEMENTE

Tipología, ornamentación, escala, proporciones, gran belleza y elementos antiguos.

REFERENCIAS Y COMENTARIOS

Tiene mediodi punto y galería.

EDITORIAL

[illegible]

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-91-



DUEÑO Antonio Luna	
NOMBRE ACTUAL	NOMBRE COMIN
NOMBRE HISTORICO	PROPUESAS Restauración
FECHA DE CONSTRUCCION 1882	X EXACTA APROXIMADA
DISEÑADOR	CONSTRUCTOR
ESTILO	
ACCESIBILIDAD	
PREPARADO POR Diana Luna	FECHA 30 Julio 1991



Elegible

NUM. DE CATASIRO 420 032 061 004	DIRECCION 6 Este Cecilia Dominguez
	
MAPA DE LOCALIZACION	

DESCRIPCION Estructura en madera. Balcón corrido, caniza hierro en balcón, canbrera, elementos clásicos en fachada.	
USO HISTORICO Vivienda	USO ACTUAL Oficina
NUM. DE PISOS	AREA INUNDABLE
AREA DE SOLAR 1	ZONIFICACION C3
13.4 X 25.0	OTRAS RESTRICCIONES P.D. 70 %
AREA DE EDIFICIO P2	
2 150.5	
SOLAR	PROPIO
	MUNICIPAL

ORIGINAL	ALTERADO					BUENO	REGULAR	NO BUENO	INVESTIGADO
X	X	CIMENTOS	Madera				X		
		SOPANES	N/A						
X	X	PISO NIVEL 1	Madera				X		
		PAREDES NIVEL 1	N/A						
X		COLUMNAS NIVEL 1	Madera				X		
X		PLAFON NIVEL 1	Madera				X		
		PISO NIVEL ALTO	N/A						
		PARED NIVEL ALTO	N/A						
		PLAFON NIVEL ALTO	N/A						
X	X	SETOS INTERIORES NIVEL 1	Madera				X		
		SETOS INTERIORES ALTOS	N/A						
X	X	TECHO	Zinc				X		
X	X	PUEBLOS INTERIORES	Madera				X		
X	X	PUEBLOS EXTERIORES	Madera				X		
X	X	BALCON EXTERIOR	Hormigón				X		
		ANTEPECHOS	N/A						
X	X	GALERIA POSTERIOR	Hormigón				X		
	X	VENTANAS	Miami				X		
		MORDENES, VENTILADORES	N/A						
		MEDIDOR UNTO	N/A						
		ESCALERA PRINCIPAL	N/A						
		ESCALERA SECUNDARIA	N/A						
X	X	ALJIBE	Cisterna				X		

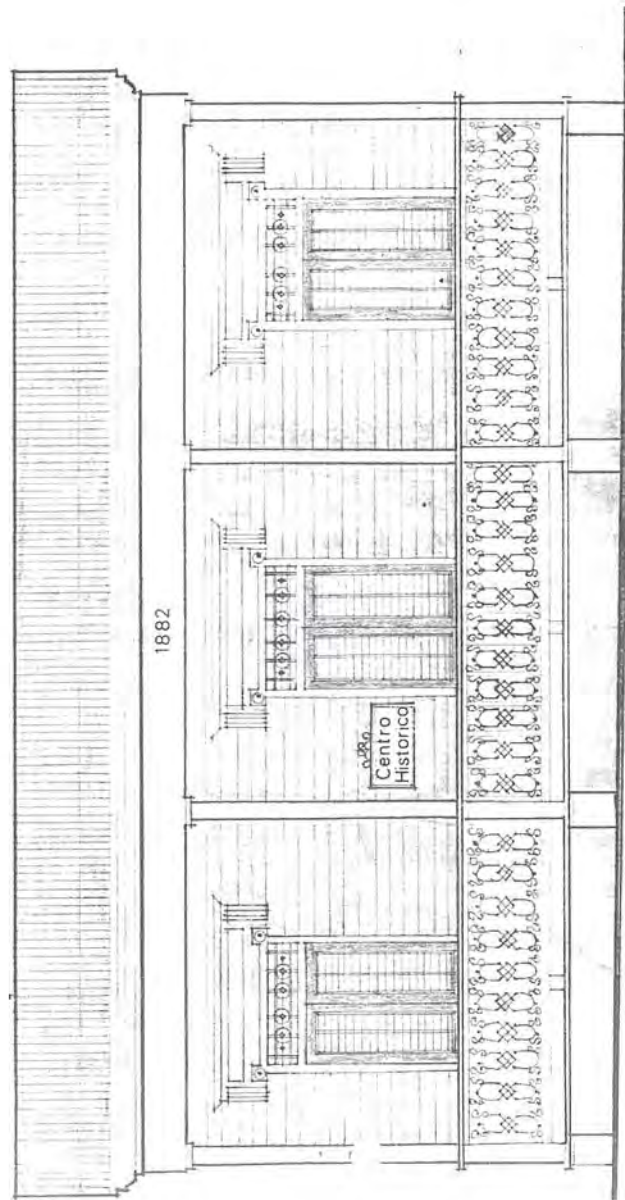
HISTORIAL	
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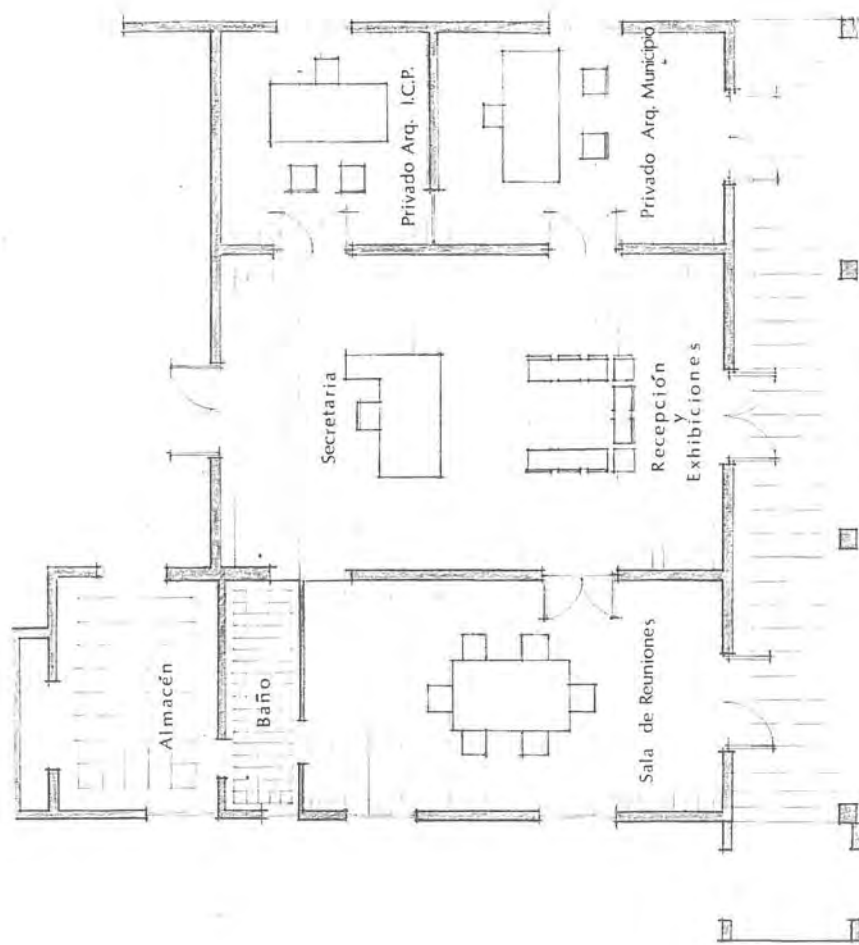
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·Planta·



·Elevacion·



•Planta•

HISTORIAL

CONDICION DE EDEMENTOS
DE LA ESTRUCTURA

ORIGINAL	ALTERADO	MATERIAL				BUENO	REGULAR	MALO	COLAPSO
X		CIMENTOS	Madera				X		
		SOPANOS	N/A						
X		PTISO NIVEL 1	Madera				X		
X		PAREDES NIVEL 1	Madera				X		
X		COLUMNAS NIVEL 1	Madera				X		
X		PLAFON NIVEL 1	Madera				X		
		PTISO NIVEL ALTO	N/A						
		PARED NIVEL ALTO	N/A						
		PLAFON NIVEL ALTO	N/A						
X		SETOS INTERIORES NIVEL 1	Madera				X		
		SETOS INTERIORES ALTOS	N/A						
X		TECHO	Zinc				X		
X		PUEBTAS INTERIORES	Madera				X		
X		PUEBTAS EXTERIORES	Madera				X		
X		BALCON FRONTAL	Madera				X		
		ANTEPECHOS	N/A						
		GALERIA POSTERIOR	N/A						
X		VENTANAS	Madera				X		
X		MONTANTES, VENTILADORES	Madera				X		
		MEDIOPUNTO	N/A						
X		ESCALERA PRINCIPAL	Cemento				X		
		ESCALERA SECUNDARIA	N/A						
		ALJIBE	N/A						

NUM. DE CATASRO 423: 03: 02 001	DIRECCION Callie Palmer 48
HISTORIAL DE ALTERACIONES Eliminar galería posterior	
DETERIORO EXISTENTE Puertas	

SIGNIFICADO	
X HISTORICO	AMBIENTAL
X ARTISTICO	ARQUITECTONICO
EXPLIQUE BREVEEMENTE Tipología, materiales ornamentación.	
REFERENCIAS Y COMENTARIOS Conserva pisos y puertas originales en madera	

HISTORIAL

N.M. DE CATASTRO	DIRECCION
420-033-062-01	

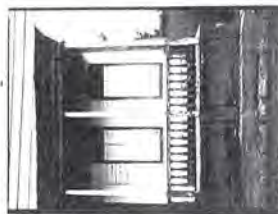
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-102-

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DUEÑO	
NOMBRE ACTUAL	NOMBRE COMÚN
NOMBRE HISTÓRICO	PROPUESTAS
	Ninguno
FECHA DE CONSTRUCCIÓN	EXACTA
1671	APROXIMADA
DISEÑADOR	CONSTRUCTOR
ESTILO	
ACcesIBILIDAD	
PREPARADO POR	FECHA
M. Mariani	29 julio 1991



Estructura Elegida

NÚM. DE CATASTRO	DIRECCION
420 042 150 002	Ashford 43
<p>Baldonado Duyuc E. Gonzalez</p> <p>MAPA DE LOCALIZACION</p>	

DESCRIPCION	
Techo en zinc con cumbreira, paredes parte en cemento y parte en madera. plafón en madera ranurada, balcón frontal corrido en madera con columnas y balaustrres en madera, escalera principal en cemento, Tiene ventiladores y galeria posterior.	
USO HISTÓRICO	USO ACTUAL
Vivienda	Abandonada
NÚM. DE PISOS	AREA INUNDANTE
1	
AREA DE SOLAR	ZONIFICACION
18.3 X 40.4 X 19.0	
AREA DE EDIFICIO	OTRAS RESTRICCIONES
SOLAR	PROPIO
	MUNICIPAL

420-042-150-002

Casa de madera cubierta de hierro galvanizado, de un solo piso sobre cimientos de mampostería, radicada en la calle Nueva (Ashford) sobre un solar de 20 varas de frente con 41 de fondo. Colinda:

Norte - Don Juanino Sarmión
Sur - Sucesores de Don Plácido Llabres
Oeste - Con la referida calle
este - Con el camino antiguo de Arroyo

Don Francisco Vives vende su finca a Doña Manuela Paul casada con Don Francisco Rivera 1871. Don Francisco Rivera muere dejando dos hijos: Doña María del Carmen Rivera Paul y Don Arturo María Rivera Paul. Sus herederos venden tres cuartas partes de esta finca a Don Ignacio Diaz y Togliar. Doña Manuela Paul, Don Ignacio Diaz y Doña María del Carmen Rivera casada con Don Antonio I. Palés pidió y obtuvo licencia marital para la presente venta.

Don Arturo María Rivera vende su parte a Don Ignacio quedando éste dueño de la casa. Don Ignacio muere dejando herederos a sus hijos legítimos Doña Enriqueta Díaz Anés y Doña María Hortensia Díaz Anés, Don Ramón Palés y Doña María Esperanza Díaz y su hija natural Doña Concepción Díaz Fraticelli de Pales. Doña Concepción muere y deja heredero a su cónyuge Don Domingo Wenceslao Palés y Anés y sus legítimos hijos.

Don Wenceslao Palés y Anés da en pago la tercera parte que le corresponde a Doña Eloisa Palés y Anés
23/8/1904.

Herederos: Doña Luisa María de la Concepción Palés Díaz, Doña Mercedes Palés Díaz de Esinet, Doña Lucila Palés Díaz de Rovira, Doña Enriqueta Amparo Palés Díaz de Moscoso, Don Rafael Palés Díaz, Don Eduardo Palés Díaz, Don Jesús María Palés Díaz, Doña Eloísa Palés y Anés.

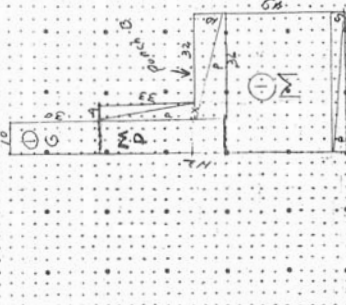
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-107-

DESCRIPCION DE MEJORA S

DESCRIPCION DE MEJORA S

DIAGRAMA DEL EDIFICIO



	Vigas Madera
	Horm. Sastre Releños
	Hornición Armado
	Vigas de Acero

PAREDES EXTERIORES		Int6. Bo.
TERMINACION		
Módulo		
Albanos		
Empuñado		
Bloque Hormigón		
Hierro Galvanizado		
Cerón de Tschur		
20.150 Són 4.		

TÉCHO			
% A	Incl. Bé.	TERMINACION	Incl. Bé.
		Hierro Galv.	
		Tela	
		Cemento Integral	

<p>1. ELECTRICA</p> <p>2. PAREDES INTERIORES</p>	<p>3. ESTRUCTURA</p> <p>4. PAREDES EXTERIORES</p>
<p>5. PISO</p> <p>6. CUBIERTA</p> <p>7. PUERTAS</p> <p>8. VENTANAS</p> <p>9. BAÑOS</p> <p>10. COCINA</p> <p>11. SUELO</p> <p>12. TUBERIA</p> <p>13. PINTURA</p> <p>14. OTRAS</p>	<p>15. MADERA</p> <p>16. BLOQUE</p> <p>17. HORM. ARM.</p>

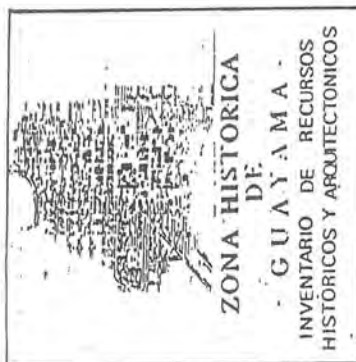
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A	Una Familia
B	Dois Famílias
C	Varías Familias - Escalera
D	Varías Familias - Elevador
E	Hotel
F	Garaje Público
G	Yankee Mercado, Casa Auto-
H	Edificio Oficinas
I	Edificio Oficinas
J	Banco
K	Teatro Etc.
L	Almacén - Industrial
M	Estación de Gasolina
N	Edificio Oficinas
O	Otras Estructuras
P	Servicios Públicos
Q	Solar sin Edificaciones
R	Propiedades Exentas
S	
T	
U	
V	
W	
X	

CLASE	UNID	DOS	TRES	CUATRO	APROBADO
AUXILIAR DE CAMPO					
E. Robinson 12-13-44 3289.72 12/16/46					
T. Allen 283 2/15/46					
DETALLES ADICIONALES					
PLOMERIA	Inl.	Bb.	B.	Costo	COSTO TOTAL
Instento		1		54.11	
Llaveo		1		38.31	
Banetas					
Banetas con Ducho					
Ducha	1			19.52	
Fregadero					
Lavatorio		1		74.35	
Calentador Agua				91.37	284.66
CE					
LOSETAS	Area	Unidades	Costo		
De Cemento	323	18	67.14		67.14
Ceramica					
Asfalcos					
REJAS	Tipa	Area	Unidades	Costo	
Porchas					
Ventanas					
CLASE	Tipa	Piso	Unidades	Costo	
GABARJE 192	3.70	H	133	341.20	
300.00	5.20	H	156	492.00	866.40
DOMICILIO DEL SERVICIO	Tipa	Piso	Unidades	Costo	
Areas Perimetricas	Material	Area	Unidades	Costo	
pasera y Entrada	H	342	10	392.20	
Patio					392.20
VERJAS	Tipa	Long	Unidades	Costo	
Frente	0				
Quadrado	u				
Cuadrado	u				
Pende					
FACHADA DE TIENDA					
	Area	Unidades	Costo		
PORCHES Y BALCONES					
Porchado (A)	Tipa	Area	Unidades	Costo	
Balcones	H M	23.0	1.23	371.90	1534.42
Porchado (B)	H M	412	231	118.52	9791.8

FECHA DE FOTOGRAFIA

OBSERVACIONES



DUEÑO Fa. Morales	
NOMBRE ACTUAL	NOMBRE COMÚN
NOMBRE HISTÓRICO	PREFUESTAS
FECHA DE CONSTRUCCIÓN	VENTA
1800-1900	EXACTA
DISEÑADOR	APROXIMADA
	X
CONSTRUCCION	
ESTILO	
ACCESIBILIDAD	
PREPARADO POR D. Luna	FECHA 10-91



Eligible

El dominio
1872 a 1900
cuando se
construyó el
edificio
Teniente

NÚM. DE CATASTRO 420 042 107 005	DIRECCIÓN Calle Ashford 3 S
<p>Ashford</p> <p>Derkes</p> <p>MAPEA DE LOCALIZACIÓN</p>	

DESCRIPCIÓN Estructura en madera. Balcón corrido alineado a acera. Hierro en balcón	
USO HISTÓRICO Vivienda	USO ACTUAL Vivienda
NÚM. DE PISOS 1	ÁREA INUNDABLE
ÁREA DE SOLAR 22.8x33.8x33.5x33.0	ZONIFICACIÓN E-2 R-3
ÁREA DE EDIFICIO 207.15 m ²	OTRAS RESTRICCIONES PD 4576
SOLAR	PROPIO
	MUNICIPAL

HISTORIAL

CONDICION DE ELEMENTOS
DE LA ESTRUCTURA

ALTERADO	ORIGINAL	MATERIAL	BUENO	REGULAR	MAIO	NO EXISTE
		CIMENTOS	X			
		SOTANOS				
		PISO NIVEL 1	X			
		PAREDES NIVEL 1	X			
		COLUMNAS NIVEL 1				
		PLAFON NIVEL 1	X			
		PISO NIVEL ALTO :				
		PARED NIVEL ALTO				
		PLAFON NIVEL ALTO				
		SETOS INTERIORES NIVEL 1	X			
		SETOS INTERIORES ALTOS				
		TECHO	X			
		PUEBTAS INTERIORES				
		PUEBTAS EXTERIORES	X			
		BALCON FRONTAL	X			
		ANIREDECHOS				
		GALERIA POSTERIOR				
		VENTANAS				
		MONTANTES, VENTILADORES	X			
		MEDIOFUNTO				
		ESCALERA PRINCIPAL				
		ESCALERA SECUNDARIA				
		ALJIBE				

NUM. DE CATASRO 420 02 107 005	DIRECCION Calle Ashford 3 S
HISTORIAL DE ALTERACIONES	
INTERIOR EXISTENTE Buen estado.	

SIGNIFICADO	
X HISTORICO	AMBIENTAL
X ARTISTICO	X ARQUITECTONICO
EXPLIQUE BREVEMENTE Estructura cuya tipologia materiales y ornamentacion la hacen importante.	
REFERENCIAS Y COMENTARIOS	

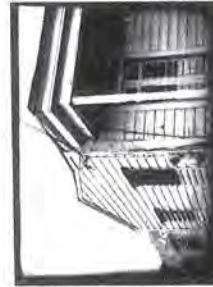
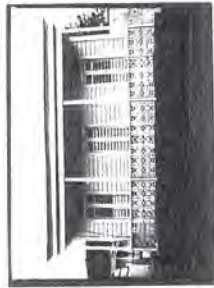
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101-5

DESCRIPCION DE MEJORAS																																																																																																																																																																																																																																													
CLASE		DOS - TRES - CUATRO		8		4+		AFRORADO																																																																																																																																																																																																																																					
AUXILIAR DE CAMPO		TASADOR		12-21-49		12-25-49																																																																																																																																																																																																																																							
DETALLES ADICIONALES																																																																																																																																																																																																																																													
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DUEÑO Gregorio Vazquez	
NOMBRE ACTUAL	NOMBRE COMUN
NOMBRE HISTORICO PROPUESTAS	
FECHA DE CONSTRUCCION 1900	EXACTA
DISEÑADOR	APROXIMADA
ESTILO	
ACCESIBILIDAD	
PREPARADO POR D. Luna	FECHA 10-91



Estructura Elegible

NUM. DE CATASTRO 420 032 037 001	DIRECCION Calle Palmer 88 W.
<p>Mapa de Localización</p> <p>Palmer Ashford</p> <p>B. Perez</p>	

DESCRIPCION Estructura de maderas con techo de zinc y aluminio cortado en 11 metros cuerpo	
USO HISTORICO	USO ACTUAL vivienda
NUM. DE PISOS 1	AREA INUNDABLE
AREA DE SOLAR 15.2 X 13.4 X 13.4	ZONIFICACION R 4
AREA DE EDIFICIO 901.02	OTRAS RESTITUCIONES 100-91-6
SOLAR	PROPIO
	MUNICIPAL

HISTORIAL	
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ORIGINAL	ALTERADO	CONDICION DE ELEMENTOS DE LA ESTRUCTURA	MATERIAL	BUENO	REGULAR	MALO	NO SE INVESTIGÓ
		CIMENTOS					X
		SOTANOS					X
		PISO NIVEL 1					X
		PAREDES NIVEL 1	Madera				X
		COLUMNAS NIVEL 1					X
		PLAFON NIVEL 1					X
		PISO NIVEL ALTO	N/A				
		PARED NIVEL ALTO	N/A				
		PLAFON NIVEL ALTO	N/A				
		SETOS INTERIORES NIVEL 1					X
		SETOS INTERIORES ALTOS	N/A				
		TECHO	Zinc		X		
		PUEBTAS INTERIORES					X
		PUEBTAS EXTERIORES	Madera		X		
		BALCON FRONTAL	Madera/horm		X		
		ANTEPECHOS	Metal	X			
		GALERIA POSTERIOR					X
		VENTANAS	Miami		X		
		MONTANTES, VENTILADORES	Madera	X			
		MEDIO PUNTO					X
		ESCALERA PRINCIPAL	horm.				X
		ESCALERA SECUNDARIA					X
		ALJIBE					X

NUM. DE CATASTRO 420 032 937 001	DIRECCION Calle Palmer 88 N.
HISTORIAL DE ALTERACIONES <i>Ventanas</i>	
DETERIORO EXISTENTE	

SIGNIFICADO	HISTORICO	AMBIENTAL
	ARTISTICO	X ARQUITECTONICO
EXPLIQUE BREVIEMENTE <i>Estructura antigua de valor tipológico</i>		
REFERENCIAS Y COMENTARIOS		

HISTORIAL

DIRECCION

NUM. DE CATASIRO
420-033-062-01

BIVULFS DE INTERVENICION									
T P O L O C I A S									
PROPIEDAD INTECTA DE VALOR MONEDIAL									
PROPIEDAD TRANSFORMADA DE VALOR MONEDIAL									
PROPIEDAD INTECTA DE VALOR INDIVIDUAL									
PROPIEDAD TRANSFORMADA DE VALOR INDIVIDUAL									
PROPIEDAD DE VALOR AGRIENTIAL									

MEJORAS				TIERRA			
DATOS DE CONSTRUCCION				DATOS ANTERIORES DE TASACION			
REGISTRO DE PERMISO No. 1956 1958 Fecha 1958				PARCELA 001 MUN. BO. MANZ. PAR. 71-003-420-032-037-01 Direccion: Calle 1 S. PALMER 330 V. P. OOR 1A Municipio: San Juan, P.R.			
DATOS DE CONSTRUCCION Alteraciones y Ampliaciones 1. Construcción de 1500' x 1500' de concreto armado 2. Construcción de 1500' x 1500' de concreto armado 3. Construcción de 1500' x 1500' de concreto armado				DATOS ANTERIORES DE TASACION RECTIFICACION 86 50.51 ANTERIORES 1500 1500 1500			
SERVICIOS: Agua, Luz, Gas, Teléfono, etc.				SERVICIOS: Agua, Luz, Gas, Teléfono, etc.			
DEPRECIACION Y ESTADO DE DESUSO Año de Transición 1956 Año de Efecto 1958 Total 1956 1958 Depreciación Normal 1956 1958 Depreciación Observada 1956 1958				DEPRECIACION Y ESTADO DE DESUSO Año de Transición 1956 Año de Efecto 1958 Total 1956 1958 Depreciación Normal 1956 1958 Depreciación Observada 1956 1958			
COMPUTO DEL VALOR DE MEJORAS 1. Construcción de 1500' x 1500' de concreto armado 2. Construcción de 1500' x 1500' de concreto armado 3. Construcción de 1500' x 1500' de concreto armado				COMPUTO DEL VALOR DE LA PARCELA 1. Construcción de 1500' x 1500' de concreto armado 2. Construcción de 1500' x 1500' de concreto armado 3. Construcción de 1500' x 1500' de concreto armado			
GOBIERNO INSULAR DE PUERTO RICO TASACION DE LA PROPIEDAD				GOBIERNO INSULAR DE PUERTO RICO TASACION DE LA PROPIEDAD			

100

E: (UNO). DOS - TRES - CUATRO	A	3
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CLASE. UNO. DOS. TRES. CUATRO	✓	3	+
AUXILIAR DE CAMPO	TASADOR		
M. Otero C.	5/11/50	12-22-59	
		Opio	12/24/56
		APROBADO	

DETALLES ADICIONALES	
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99	99
100	100

PLANTERIA	Int.	Stk.	\$.	Cuanto	COSTO TOTAL
Indodoro	1			41.33	
Lavabo					
Baldera					
Baldera con Duchin	1			114.74	
Ducha					
Fregadero		1		68.89	
Lavadero					
Caldador Agua					
<u>C. G.</u>				88.37	328.94

LOSSETAS	Area	Unilario	Costo
De Cemento	901	.18	162.18
Ceramica			
Azulejos			

R E J A S	Tipo	Area	Unidades	Costo
Porches				
Ventanas				

GARAJE	CLASE Unid Duo Tres	pared y Techo	Piso	Unitario	Costo
DOMICILIO	CLASE Unid Duo Tres	pared y Techo	Piso	Unitario	Costo

UNO DEL SERVICIO	Uno Dos Tres			
		Áreas Pavimentadas Pasos y Entrada	Materiales	Área
			Unidad	Costo

[illegible][illegible]

FORCHES Y BALCONES	Tipo	Area	Edif	Costo
Arches HG	M	114.3	227	448.48

BRICKS					
B. Ponds HG	11-11-0	15-6	188	283-80	25-1-16
					10-4-78
					9-9-122

100

ENTOS		ESTRUCTURA PISO	
		Vigas Macera	✓
	ers	Horm. Sobre Relleno	✓
	ingido	Hormigón Armado	
	poslería	Vigas de Acero	
	ngón		

AREDES EXTERIORES		TERMINACION	Int.	Bo.
STRUCTURA		✓		✓
18		Madera		
		Asbestos		
		Empaquetado		
		Blanco Hormigado		
		Hierro Galvanizado		
		Clon de Techar		
		2.72	1.52	3.62

TECHO					
UPRA	Int	Bo.	TERMINACION	Inf.	Bo.
			✓	Huero, Galle	✓

País	Teja
Armado	Cemento Integral

CON ELECTRICA	DO	LAMPARAS FIJAS	PAREDES INTERIORES
			ESTRUCTURA
			Madera

✓	Corriente	✓	Bloque
	Buena		Horn. Arm.

[illegible]

SEPT	Primera	Segunda	Plantas Ad	Milnador	Madera	Lana Asta	Socor Mada	Cemento	Lana Asta	Robor Hor	Laceta Ce	Ceramica
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2

ACIONES: la cocina es la

DIAGRAMA DEL EDIFICIO 2

ESCALA 1:200

42.2

15.2

12.2

25.4

C.A. - Puerta de acceso al B.A. - 2.00m

PANELES		PLACOS DE	
Cartón		Impagelado	
Madera 1 Clase	✓	Metal Esplanchado	
Madera 2 Clase		Madera	✓
Impagelado		Cartón	
Aluminio		Minguno	✓
Porcelano			
Madera del País			

1	Cartón	✓
2	Madera 1 Clase	✓
3	Madera 2 Clase	
4	Impagelado	
5	Aluminio	
6	Porcelano	
7	Madera del País	
8	Minguno	✓
9	Cartón	✓
10	Madera	✓
11	Metal Esplanchado	
12	Impagelado	

PANELES		PLACOS DE	
Cartón		Impagelado	
Madera 1 Clase	✓	Metal Esplanchado	
Madera 2 Clase		Madera	✓
Impagelado		Cartón	
Aluminio		Minguno	✓
Porcelano			
Madera del País			

1	Cartón	✓
2	Madera 1 Clase	✓
3	Madera 2 Clase	
4	Impagelado	
5	Aluminio	
6	Porcelano	
7	Madera del País	
8	Minguno	✓
9	Cartón	✓
10	Madera	✓
11	Metal Esplanchado	
12	Impagelado	

PANELES		PLACOS DE	
Cartón		Imp	

ION INTERIOR

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DUEÑO Tomás Díaz Vázquez	
NOMBRE ACTUAL Juana Rodríguez	NOMBRE COMÚN Casa Rodríguez
NOMBRE HISTÓRICO	PROYECTOS Ninguna
FECHA DE CONSTRUCCIÓN 1900	EXACTA X APROXIMADA
DISEÑADOR	CONSTRUCTOR
ESTILO	
ACCESIBILIDAD	
PREPARADO POR Jorge Torres	FECHA 5 julio 1990



Estructura Elegible

NÚM. DE CATASTRO 420 032 025 012	DIRECCIÓN Calle Palmer 102 N
<p>239, PORTA-DEL-REY</p> <p>Bellón</p> <p>S. Palmera</p> <p>Ashford</p> <p>POKATA</p> <p>MAPA DE LOCALIZACIÓN</p>	

DESCRIPCIÓN Casa en madera original ventanas en miami puerta frontal alterada. Tiene mediodiurno.	
USO HISTÓRICO Vivienda	USO ACTUAL Vivienda
NÚM. DE PISOS 1	ÁREA INUNDABLE
ÁREA DE SOLAR 12.3 X 18.6	ZONIFICACIÓN R-4
ÁREA DE EDIFICIO	OTRAS RESTRICCIONES
SOLAR	PROPIO
Feb. 4 - 1982	MUNICIPAL

NÚM. DE CATASRO	DIRECCION
420 032 025 012	Palmer 102 Norte
HISTORIAL DE ALTERACIONES	
Puertas y Ventanas	
DETENCION EXISTENTE	

SIGNIFICADO	
HISTORICO	AMBIENTAL
ARTISTICO	ARQUITECTONICO
EXPLIQUE BREVEEMENTE	
Tipología, materiales, ornamentación, techo a dos aguas.	
REFERENCIAS Y COMENTARIOS	
Pro bosta, mosaico del país.	

CONDICION DE ELEMENTOS DE LA ESTRUCTURA		MATERIAL							
ORIGINAL	ALTERADO								
X		CIMENTOS	Madera						
		SOTANOS	N/A						
X		PISO NIVEL 1	Cemento	X					
X		PAREDES NIVEL 1	Paneles	X					
X		COLUMNAS NIVEL 1	Madera		X				
X		PLAFON NIVEL 1	Madera	X					
		PISO NIVEL ALTO	N/A						
		PARED NIVEL ALTO	N/A						
		PLAFON NIVEL ALTO	N/A						
X		SETOS INTERIORES NIVEL 1	Madera		X				
		SETOS INTERIORES ALTOS	N/A						
X		TECHO	Zinc		X				
		PUEBTAS INTERIORES	N/A						
X		PUEBTAS EXTERIORES	Madera	X					
		BALCON FRONTAL	N/A						
		ANTEPECHOS	N/A						
		GALERIA POSTERIOR	N/A						
X		VENTANAS	Miami	X					
		MONTANTES, VENTILADORES	N/A						
		MEJORUNTO	N/A						
		ESCALERA PRINCIPAL	Cemento	X					
		ESCALERA SECUNDARIA	N/A						
		ALJIBE	N/A						

HISTORIAL

NUM. DE CATASTRO	420 032 025 012
DIRECCION	Calle Palmer # 102

DIRECTION
Calle Pal

Calle Palmer # 102

Solar radicado frente a la calle Palmer marcado con el # 102 y esquina Forata Doria colinda por el norte con parte del solar ocupado por la Sucedión José Torregrosa, por el sur con parte de la calle Porata Doria, por el este con parte del solar ocupado por José Montes hoy Camilo Vélez y por el oeste con parte de la calle Palmer. En este solar enclava una casa de madera techada de zinc. Se forma por segregación de la finca escrita a favor del municipio de Guayama. El 12 de julio de 1982 la corporación municipal de Guayama representada por su alcalde Miguel Díaz Tirado segrega y vende el solar descrito a favor de Don Tomás Díaz Vazquez y Maxima Molica. Dichos esposos Díaz-Mojica venden 21/7/1985 a Doña Juana Rodríguez Benito. Se recibe la finca su nombre 6/5/1988

[illegible]

[illegible]



DUEÑO <i>Jose</i> Suc. Torregrosa	
NOMBRE ACTUAL	NOMBRE COMÚN
NOMBRE HISTÓRICO	PROPUESTAS
FECHA DE CONSTRUCCIÓN 1940	EXACTA X APROXIMADA
DISEÑADOR	CONSTRUCTOR
ESTILO	
ACCESIBILIDAD	
PREPARADO POR Julio Sanabria	FECHA 22 julio 1991



Estructura Elegible.

NÚM. DE CATASTRO 420 022 025 013	DIRECCION Palmer 104
MAPA DE LOCALIZACION	

DESCRIPCION La fachada de la casa se ve en buenas condiciones tiene cumbraera balcón frontal en cemento y madera tiene balaustreen hierro, puertas en madera, piso en madera, paredes interiores y exteriores en madera ventanas de miami.	USO ACTUAL Vivienda
NÚM. DE PISOS 1	AREA INUNDABLE
AREA DE SOLAR 26.5	ZONIFICACION R-4
AREA DE EDIFICIO 1972.5	OTRAS RESTRICCIONES PROPIO
SOLAR	PROPIO
	MUNICIPAL

EDITORIAL

NUM. DE CATASTRO	DIRECCION
420 022 025 013	Palmer # 104

[illegible]

MEJORAS 5.5.104-26-4664

10090 15 TIERRA

4700012-015 006 1430 F

PARCELA		MUN. BO		MAPA		MANZ.		PAR.	
001		71-06-420-032-025-13							
Dirección: Calle		Santiago Volmex		Número del Ocupante		104		Núm. 104	
Nombre del Contribuyente:		Hector Pelayo		Dirección		Hector Pelayo			
Nombre del Contribuyente:		Hector Pelayo		Dirección		Hector Pelayo			
Construcción: Año		1934		Coto		2000		Permisos	

RECIDIO		ASO		FISCAL		NOMBRE Y DIRECCION		TIERRA		VALOR		VALOR		VALOR	
1588 50-51		Santiago		Palmeria 104		M		1200		150052					

COMPUTO DEL FACTOR DE MODIFICACION		COMPUTO DEL VALOR DE LA PARCELA	
$AF = 3.45$ $AB = 3.45$ $FM = 13.04 \times 26.5 = 768$		$AF = 3.45$ $AB = 3.45$ $FM = 13.04 \times 26.5 = 768$	

COMPUTO DEL VALOR DE MEJORAS		COMPUTO DEL VALOR DE LA PARCELA	
$AF = 3.45$ $AB = 3.45$ $FM = 13.04 \times 26.5 = 768$		$AF = 3.45$ $AB = 3.45$ $FM = 13.04 \times 26.5 = 768$	

COMPUTO DEL VALOR DE MEJORAS		COMPUTO DEL VALOR DE LA PARCELA	
$AF = 3.45$ $AB = 3.45$ $FM = 13.04 \times 26.5 = 768$		$AF = 3.45$ $AB = 3.45$ $FM = 13.04 \times 26.5 = 768$	



DUEÑO	
NOMBRE ACTUAL	NOMBRE COMIN
NOMBRE HISTORICO PROPUESTAS	
FECHA DE CONSTRUCCION 1910	EXACTA
	X APROXIMADA
DISEÑADOR CONSTRUCTOR	
ESTILO	
ACCESIBILIDAD	
PREPARADO POR	FECHA
Julio Sanabria	22 julio 1991



Estructura Elegible

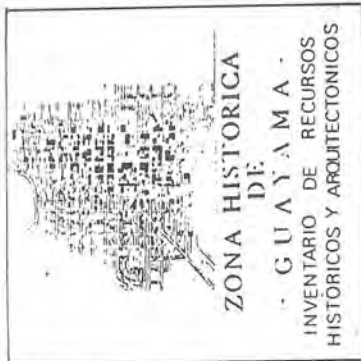
NUM. DE CATASTRO	DIRECCION
420 022 025 014	Palmer 106 Norte.
<p>BELLON Palmer Barata Doria MAPA DE LOCALIZACION</p>	

DESCRIPCION	
Estructura en Madera con balcón corrido, cubierta, alineada con la acera.	
USO HISTORICO	USO ACTUAL
Vivienda	Vivienda
NUM. DE PISOS	AREA INUNEABLE
1	
AREA DE SOLAR	ZONIFICACION
12.5 X 26.5	R-4
AREA DE EDIFICIO	OTRAS RESTRICCIONES
1441.6	P-0 2.0 8/6
SOLAR	PROPIO
1845	MUNICIPAL

HISTORIAL

NIM. DE CATASIRO										DIRECCION									
426-022-025-14										Palmen 106 Norte									

-130-



DUEÑO		
NOMBRE ACTUAL	NOMBRE COMÚN	
NOMBRE HISTÓRICO	PROPUESTAS	
FECHA DE CONSTRUCCIÓN 1940	EXACTA	
	X APROXIMADA	
DISEÑADOR	CONSTRUCTOR	
ESTILO		
ACCESIBILIDAD		
PREPARADO POR Julio Sanabria	FECHA 22 julio 1991	



Estructura Elegible

NÚM. DE CATASTRO 420 022 025 015	DIRECCION Palmer 108 Norte
-------------------------------------	-------------------------------

BELLON

Palmer

Porta Dorca

MAPA DE LOCALIZACION

DESCRIPCION Techo en zinc, puertas de madera balcón frontal en cemento y madera paredes exteriores y interiores en madera tiene cumbreira.	
USO HISTORICO Vivienda	USO ACTUAL Vivienda
NÚM. DE PISOS 1	AREA INUNDABLE
AREA DE SOLAR 13.1	ZONIFICACION R-4
AREA DE EDIFICIO 9.70 P2	OTRAS RESTRICCIONES P-6-34 1/2
SOLAR	PROPIO
	MUNICIPAL

HISTORIAL

CONDICION DE ELEMENTOS
DE LA ESTRUCTURA

ORIGINAL	ALTERADO	MATERIAL	BUENO	REGULAR	MALO	INVESTIGACION
X	X	CIMENTOS	X			
		SOTANOS	N/A			
X	X	PISO NIVEL 1	X			
X		PAREDES NIVEL 1	Madera			
		COLUMNAS NIVEL 1	Madera	X		
X	X	PIAFON NIVEL 1	Madera	X		
		PISO NIVEL ALTO	N/A			
		PARED NIVEL ALTO	N/A			
		PIAFON NIVEL ALTO	N/A			
X	X	SETOS INTERIORES NIVEL 1	Madera	X		
		SETOS INTERIORES ALTOS	N/A			
X	X	TECHO	Zinc	X		
		FUERIAS INTERIORES	Madera	X		
		FUERIAS EXTERIORES	Madera	X		
X	X	BALCON FRONTAL	Cemento	X		
		ANTEPECHOS	N/A			
		GALERIA POSTERIOR	N/A			
X	X	VENTANAS	Miami	X		
		MONTANTES, VENTILADORES	N/A			
		MEDIOPUNTO	N/A			
X	X	ESCALERA PRINCIPAL	Cemento	X		
		ESCALERA SECUNDARIA	N/A			
		ALJIBE	N/A			

NUM. DE CATASTRO 420 022 025 015	DIRECCION Palmer 108 Norte
HISTORIAL DE ALTERACIONES <i>Puertas y Ventanas</i>	
DETETIORO EXISTENTE	

SIGNIFICADO	HISTORICO	AMBIENTAL
	ARTISTICO	● ARQUITECTONICO
EXPLIQUE BREVEEMENTE <i>Estructura de construcción típica con ornamentación.</i>		
REFERENCIAS Y COMENTARIOS		

NUM. DE CATASIRO 420 022 025 015		DIRECCION Palmer 100 N.	

NIVELES DE INTERVENCION											
PROPIEDAD INTEGRA DE VALOR MONEDIAL											
PROPIEDAD TRANSFORMADA DE VALOR MONEDIAL											
PROPIEDAD INTEGRA DE VALOR INDIVIDUAL											
PROPIEDAD TRANSFORMADA DE VALOR INDIVIDUAL											
PROPIEDAD DE VALOR ANTIETAL											

T	I	P	O	L	D	C	I	A	S										

DESCRIPCION DE MEJORAS

[illegible]

APPENDIX D: BUILDING INFORMATION SHEETS FOR SAMPLE SITES

GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 4 Cecelio Dominguez Street

[Building Data Form]

Address: 4 E. Cecelio Dominguez Street
Date of Construction: ~1860-1890
Current Owner: Rafael Roca

Description:

Type: wooden construction No. of Stories: 1 Bays: 5

Alterations to Structure:

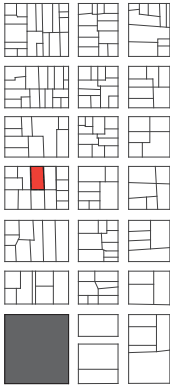
glass replaced in central and side doors, original railing and balusters replaced with concrete, original columns replaced with concrete, possible alterations to central door and sidelights, replacement siding at west side of building

Documentation:

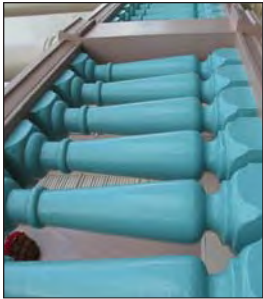
Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:

ocular, exposures, cross-sections



Architectural Details:



Material Description:

Architectural Element	Material
Body/Walls	wood, beaded diagonal siding
Building Base	concrete
Columns	concrete
Porch Railing	concrete
Porch Handrail	concrete
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	-
Window Sills	-
Window Louvers/Shutters	-
Ceiling	wood
Pavement	tile on concrete



1870-1890

[Sample Key]

Architectural drawing of the front elevation of a building facade. The drawing shows a symmetrical design with a central entrance and side windows. The facade is divided into several sections, each with different materials and textures indicated by hatching patterns. The central entrance features a large, arched window above the door. The side windows are smaller and rectangular. The drawing includes various annotations and labels for structural elements and materials, such as 4C3, 4C1, 4E1, 4C2, 4D1, 4D2, 4C4, 4C5, 4B3, 4B2, 4B4, 4F2, 4F3, 4F4, 4F5, 4F6, 4F7, 4F8, 4F9, 4F10, 4F11, 4F12, 4F13, 4F14, 4F15, 4F16, 4F17, 4F18, 4F19, 4F20, 4F21, 4F22, 4F23, 4F24, 4F25, 4F26, 4F27, 4F28, 4F29, 4F30, 4F31, 4F32, 4F33, 4F34, 4F35, 4F36, 4F37, 4F38, 4F39, 4F40, 4F41, 4F42, 4F43, 4F44, 4F45, 4F46, 4F47, 4F48, 4F49, 4F50, 4F51, 4F52, 4F53, 4F54, 4F55, 4F56, 4F57, 4F58, 4F59, 4F60, 4F61, 4F62, 4F63, 4F64, 4F65, 4F66, 4F67, 4F68, 4F69, 4F70, 4F71, 4F72, 4F73, 4F74, 4F75, 4F76, 4F77, 4F78, 4F79, 4F80, 4F81, 4F82, 4F83, 4F84, 4F85, 4F86, 4F87, 4F88, 4F89, 4F90, 4F91, 4F92, 4F93, 4F94, 4F95, 4F96, 4F97, 4F98, 4F99, 4F100, 4F101, 4F102, 4F103, 4F104, 4F105, 4F106, 4F107, 4F108, 4F109, 4F110, 4F111, 4F112, 4F113, 4F114, 4F115, 4F116, 4F117, 4F118, 4F119, 4F120, 4F121, 4F122, 4F123, 4F124, 4F125, 4F126, 4F127, 4F128, 4F129, 4F130, 4F131, 4F132, 4F133, 4F134, 4F135, 4F136, 4F137, 4F138, 4F139, 4F140, 4F141, 4F142, 4F143, 4F144, 4F145, 4F146, 4F147, 4F148, 4F149, 4F150, 4F151, 4F152, 4F153, 4F154, 4F155, 4F156, 4F157, 4F158, 4F159, 4F160, 4F161, 4F162, 4F163, 4F164, 4F165, 4F166, 4F167, 4F168, 4F169, 4F170, 4F171, 4F172, 4F173, 4F174, 4F175, 4F176, 4F177, 4F178, 4F179, 4F180, 4F181, 4F182, 4F183, 4F184, 4F185, 4F186, 4F187, 4F188, 4F189, 4F190, 4F191, 4F192, 4F193, 4F194, 4F195, 4F196, 4F197, 4F198, 4F199, 4F200, 4F201, 4F202, 4F203, 4F204, 4F205, 4F206, 4F207, 4F208, 4F209, 4F210, 4F211, 4F212, 4F213, 4F214, 4F215, 4F216, 4F217, 4F218, 4F219, 4F220, 4F221, 4F222, 4F223, 4F224, 4F225, 4F226, 4F227, 4F228, 4F229, 4F230, 4F231, 4F232, 4F233, 4F234, 4F235, 4F236, 4F237, 4F238, 4F239, 4F240, 4F241, 4F242, 4F243, 4F244, 4F245, 4F246, 4F247, 4F248, 4F249, 4F250, 4F251, 4F252, 4F253, 4F254, 4F255, 4F256, 4F257, 4F258, 4F259, 4F260, 4F261, 4F262, 4F263, 4F264, 4F265, 4F266, 4F267, 4F268, 4F269, 4F270, 4F271, 4F272, 4F273, 4F274, 4F275, 4F276, 4F277, 4F278, 4F279, 4F280, 4F281, 4F282, 4F283, 4F284, 4F285, 4F286, 4F287, 4F288, 4F289, 4F290, 4F291, 4F292, 4F293, 4F294, 4F295, 4F296, 4F297, 4F298, 4F299, 4F300, 4F301, 4F302, 4F303, 4F304, 4F305, 4F306, 4F307, 4F308, 4F309, 4F310, 4F311, 4F312, 4F313, 4F314, 4F315, 4F316, 4F317, 4F318, 4F319, 4F320, 4F321, 4F322, 4F323, 4F324, 4F325, 4F326, 4F327, 4F328, 4F329, 4F330, 4F331, 4F332, 4F333, 4F334, 4F335, 4F336, 4F337, 4F338, 4F339, 4F340, 4F341, 4F342, 4F343, 4F344, 4F345, 4F346, 4F347, 4F348, 4F349, 4F350, 4F351, 4F352, 4F353, 4F354, 4F355, 4F356, 4F357, 4F358, 4F359, 4F360, 4F361, 4F362, 4F363, 4F364, 4F365, 4F366, 4F367, 4F368, 4F369, 4F370, 4F371, 4F372, 4F373, 4F374, 4F375, 4F376, 4F377, 4F378, 4F379, 4F380, 4F381, 4F382, 4F383, 4F384, 4F385, 4F386, 4F387, 4F388, 4F389, 4F390, 4F391, 4F392, 4F393, 4F394, 4F395, 4F396, 4F397, 4F398, 4F399, 4F400, 4F401, 4F402, 4F403, 4F404, 4F405, 4F406, 4F407, 4F408, 4F409, 4F410, 4F411, 4F412, 4F413, 4F414, 4F415, 4F416, 4F417, 4F418, 4F419, 4F420, 4F421, 4F422, 4F423, 4F424, 4F425, 4F426, 4F427, 4F428, 4F429, 4F430, 4F431, 4F432, 4F433, 4F434, 4F435, 4F436, 4F437, 4F438, 4F439, 4F440, 4F441, 4F442, 4F443, 4F444, 4F445, 4F446, 4F447, 4F448, 4F449, 4F450, 4F451, 4F452, 4F453, 4F454, 4F455, 4F456, 4F457, 4F458, 4F459, 4F460, 4F461, 4F462, 4F463, 4F464, 4F465, 4F466, 4F467, 4F468, 4F469, 4F470, 4F471, 4F472, 4F473, 4F474, 4F475, 4F476, 4F477, 4F478, 4F479, 4F480, 4F481, 4F482, 4F483, 4F484, 4F485, 4F486, 4F487, 4F488, 4F489, 4F490, 4F491, 4F492, 4F493, 4F494, 4F495, 4F496, 4F497, 4F498, 4F499, 4F500, 4F501, 4F502, 4F503, 4F504, 4F505, 4F506, 4F507, 4F508, 4F509, 4F510, 4F511, 4F512, 4F513, 4F514, 4F515, 4F516, 4F517, 4F518, 4F519, 4F520, 4F521, 4F522, 4F523, 4F524, 4F525, 4F526, 4F527, 4F528, 4F529, 4F530, 4F531, 4F532, 4F533, 4F534, 4F535, 4F536, 4F537, 4F538, 4F539, 4F540, 4F541, 4F542, 4F543, 4F544, 4F545, 4F546, 4F547, 4F548, 4F549, 4F550, 4F551, 4F552, 4F553, 4F554, 4F555, 4F556, 4F557, 4F558, 4F559, 4F560, 4F561, 4F562, 4F563, 4F564, 4F565, 4F566, 4F567, 4F568, 4F569, 4F570, 4F571, 4F572, 4F573, 4F574, 4F57

GUAYAMA HISTORIC PAINT STUDY

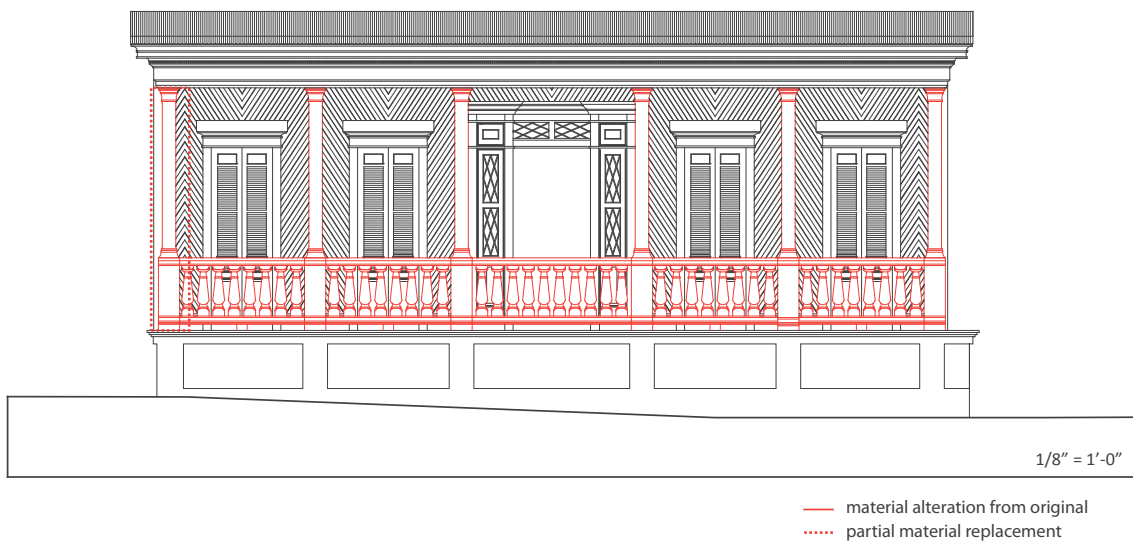
Guayama, Puerto Rico

4 Cecelio Dominguez

[Existing Condition]



[Map of Material Alterations]



GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 6 Cecelio Dominguez Street

[Building Data Form]

Address: 6 E. Cecelio Dominguez Street

Date of Construction: 1882

Current Owner: Virginia Serbia

Description:

Type: wooden construction No. of Stories: 1 Bays: 3

Alterations to Structure:

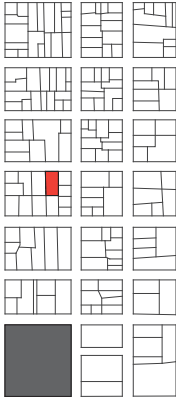
original doors replaced, baseboard new except for far west corner, siding partially replaced, elements of ceiling board replaced, exterior cornice and fascia boards new, cornerboards new, original columns replaced with concrete, bottom rail of railing and handrail replaced, original balusters replaced with cast iron decorative panels

Documentation:

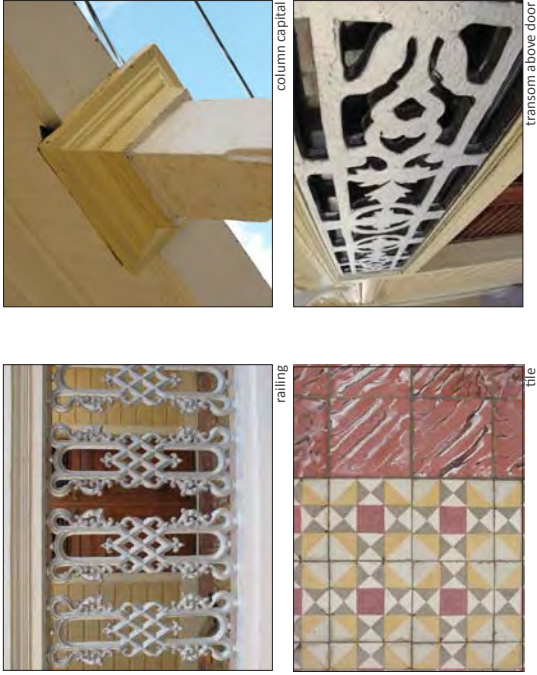
Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:

ocular, exposures, cross-sections



Architectural Details:



Material Description:

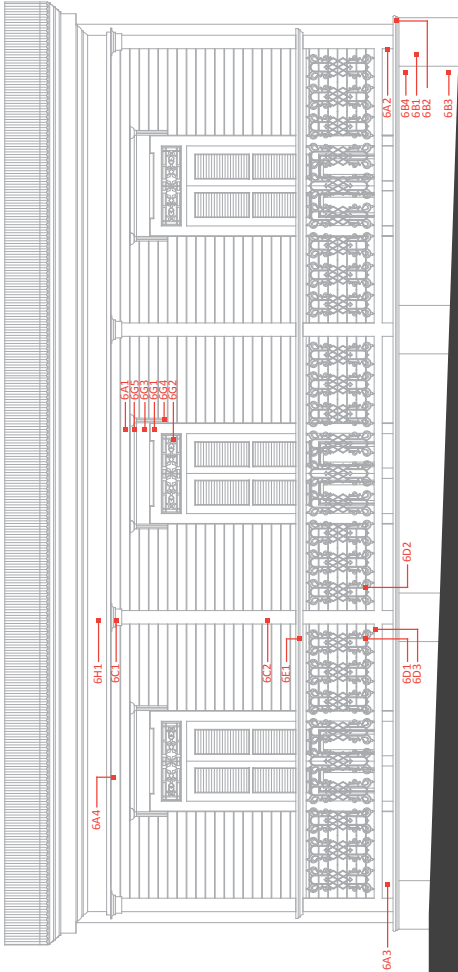
Architectural Element	Material
Body/Walls	wood, original cove siding
Building Base	concrete
Columns	concrete
Porch Railing	iron
Porch Handrail	concrete
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	-
Window Sills	-
Window Louvers/Shutters	-
Ceiling	wood
Pavement	tile on concrete



GUAYAMA HISTORIC PAINT STUDY
Guayama, Puerto Rico
6 Cecelio Dominguez

[Sample Key]

<u>Sample #</u>	<u>Sample Location</u>	<u>Sample #</u>	<u>Sample Location</u>
6 : A : 1	Wall (siding, west side of main door)	6 : D : 1	Porch Railing (middle)
6 : A : 2	Wall (trim board at wall, original)	6 : D : 2	Porch Railing (middle #2)
6 : A : 3	Wall (baseboard)	6 : D : 3	Porch Railing (base)
6 : A : 4	Wall (trim directly above siding)	6 : E : 1	Porch Handrail
6 : B : 1	Base (frosting under columns)	6 : G : 1	Door Frame (top detailing)
6 : B : 2	Base (right hand corner of frosting)	6 : G : 2	Door Frame (middle door, transom)
6 : B : 3	Base (middle panel, bottom)	6 : G : 3	Door Frame (pediment, flat detail)
6 : B : 4	Base (middle panel)	6 : G : 4	Door Frame (pediment, west detail)
6 : C : 1	Column (capital)	6 : G : 5	Door Frame (top of pediment main door)
6 : C : 2	Column (middle)	6 : H : 1	Cornice/Soffit (fascia board west)



GUAYAMA HISTORIC PAINT STUDY

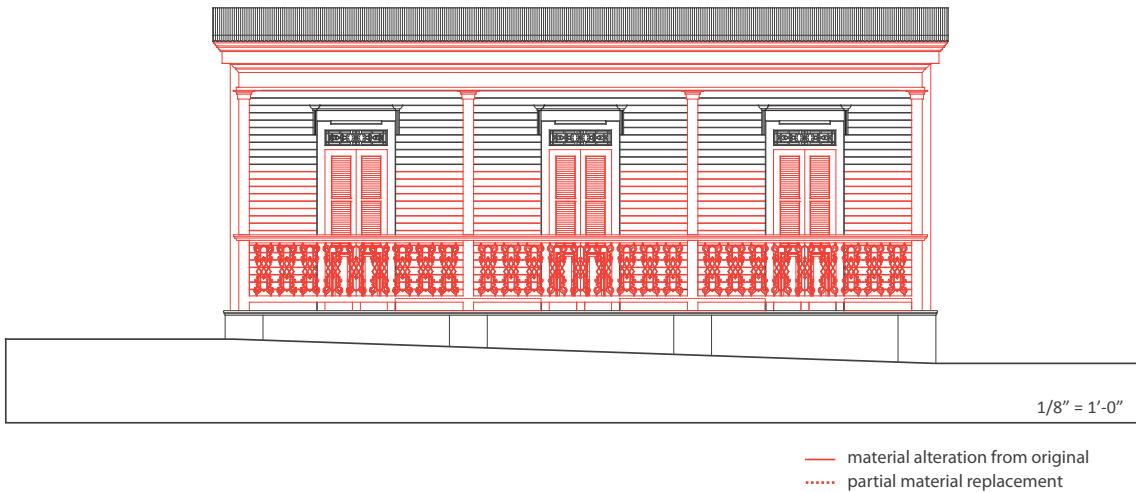
Guayama, Puerto Rico

6 Cecelio Dominguez

[Existing Condition]



[Map of Material Alterations]



GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 3 Ashford Street

[Building Data Form]

Address: 3 N. Ashford Street

Date of Construction: ~ 1900

Current Owner: Morales Family

Description:

Type: wooden construction No. of Stories: 1 Bays: 6

Alterations to Structure:

far north bay of house is missing siding and pediment above door; all but one bay of railing handrail has been replaced with iron, south side of cornice has been replaced, cornerboard missing on north side, probable repair on south side

Documentation:

Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:

ocular, exposures, cross-sections

Architectural Details:



railing



cornice & column



stone tile



repurposed trompe l'oeil boards

Material Description:

Architectural Element	Material
Body/Walls	wood, beaded siding
Building Base	concrete
Columns	galvanized metal
Porch Railing	iron
Porch Handrail	wood original, replacement iron
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	-
Window Sills	-
Window Louvers/Shutters	wood
Ceiling	wood
Pavement	stone tile on concrete



1891-1910

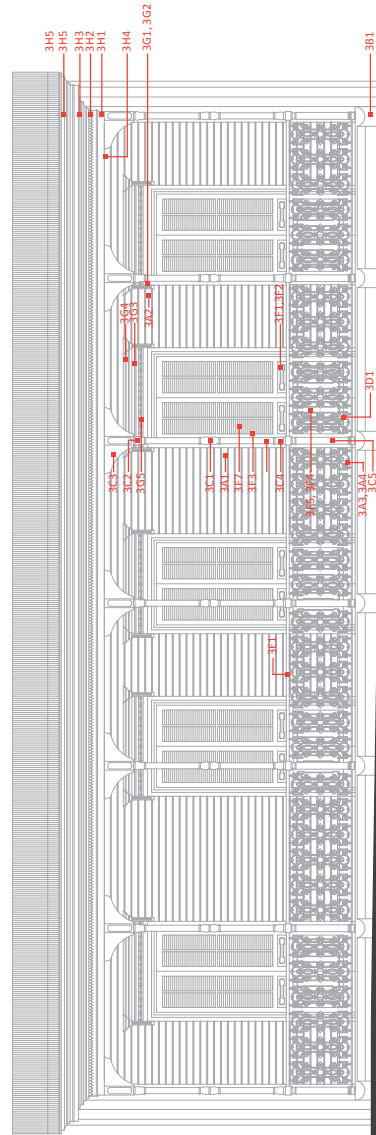
GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

[Sample Key]

Sample #	Sample Location	Sample #	Sample Location
3 : A : 1	Wall (siding)	3 : F : 3	Door (stile)
3 : A : 2	Wall (siding next to south door)	3 : F : 4	Door (panel outer frame bottom, 2nd door from the north)
3 : A : 3	Wall (baseboard)	3 : F : 5	Door (panel middle frame)
3 : A : 4	Wall (baseboard, center)	3 : F : 6	Door (side stile)
3 : A : 5	Wall (moulding diamond pattern, above south door)	3 : F : 7	Door (shutter)
3 : A : 6	Wall (crown, dentils above south door)	3 : G : 1	Door Frame (south, left side top)
3 : A : 7	Wall (crown moulding above south door)	3 : G : 2	Door Frame (stile @ left side near joint)
3 : B : 1	Base (far south bay)	3 : G : 3	Door Frame (pediment, underside of trim)
3 : C : 1	Column (#2 from the south, middle detail of joint)	3 : G : 4	Door Frame (pediment, top)
3 : C : 2	Column (#2 from the south, flower detail)	3 : G : 5	Door Frame (pediment detail in diamond)
3 : C : 3	Column (#2 from south, top)	3 : H : 1	Cornice/Soffit (cornice)
3 : C : 4	Column (at railing)	3 : H : 2	Cornice/Soffit (dentil)
3 : C : 5	Column (base)	3 : H : 3	Cornice/Soffit (curve of cornice, 1st piece of trim below roof)
3 : D : 1	Porch Railing (middle)	3 : H : 4	Cornice/Soffit (bottom of cornice)
3 : E : 1	Handrail (#3 from north)	3 : H : 5	Cornice/Soffit (cornice, top element)
3 : F : 1	Door (upper panel)	3 : L : 1	Ceiling (detail above south door, corner square)
3 : F : 2	Door (flat of upper panel, center)	3 : L : 2	Ceiling (detail above south door, diamond)
3 : F : 3	Door (stile)	3 : L : 3	Ceiling (above south door)



GUAYAMA HISTORIC PAINT STUDY

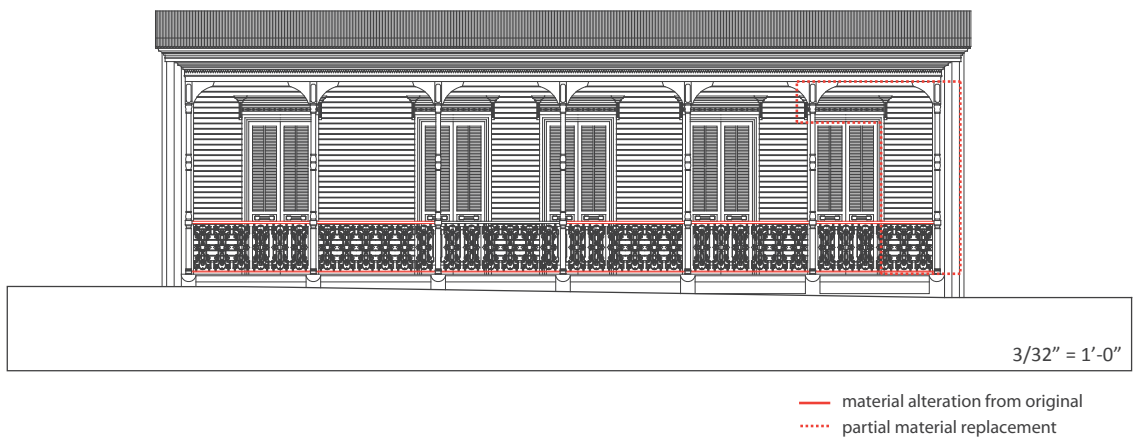
Guayama, Puerto Rico

3 Ashford Street

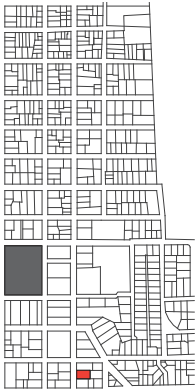
[Existing Condition]



[Map of Material Alterations]



GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 43 Ashford Street



[Building Data Form]

Address: 43 S. Ashford Street
Date of Construction: 1871
Current Owner: Abandoned

Description:
 Type: wooden construction No. of Stories: 1 Bays: 7

Alterations to Structure:
 new iron railing at south porch entrance, parital repair of cornerboards

Documentation:
 Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:
 ocular, exposures, cross-sections

Architectural Details:



Material Description:

Architectural Element	Material
Body/Walls	wood, flush mounted siding
Building Base	concrete
Columns	wood
Porch Railing	wood
Porch Handrail	wood
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	wood
Window Sills	wood
Window Louvers/Shutters	wood
Ceiling	wood
Pavement	tile on concrete



1870-1890

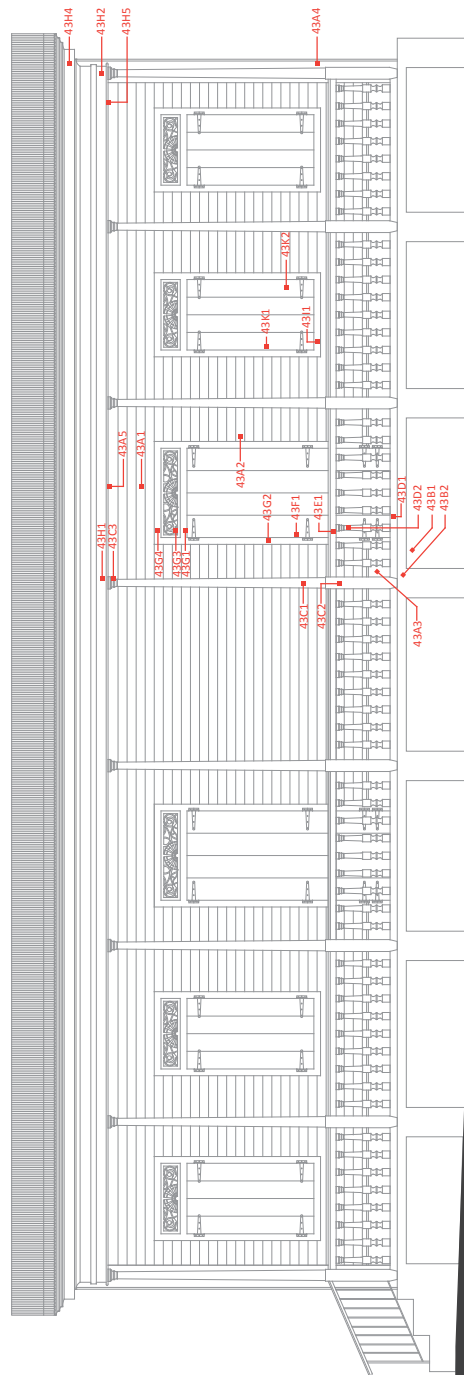
GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

[Sample Key]

Sample #	Sample Location	Sample #	Sample Location
43 : A : 1	Wall (siding above door)	43 : G : 1	Door Frame (top below transom, south)
43 : A : 2	Wall (siding adjacent to door)	43 : G : 2	Door Frame
43 : A : 3	Wall (baseboard)	43 : G : 3	Door Frame (transom above south door)
43 : A : 4	Wall (cornerboard, north)	43 : G : 4	Door Frame (top, south)
43 : A : 5	Wall (trim, crown moulding above south door)	43 : H : 1	Cornice/Soffit (fascia board interior)
43 : B : 1	Base (central panel)	43 : H : 2	Cornice/Soffit (cornice, lower level flat board)
43 : B : 2	Base (dividers below columns)	43 : H : 4	Cornice/Soffit (middle moulding)
43 : C : 1	Column (middle shaft)	43 : H : 5	Cornice/Soffit (underside board, soffit)
43 : C : 2	Column (middle base)	43 : I : 1	Window Frame (2nd window, south)
43 : C : 3	Column (capital)	43 : K : 1	Window Shutter (edge #2)
43 : D : 1	Porch Railing (bottom rail)	43 : K : 2	Window Shutter (right panel, middle)
43 : D : 2	Porch Railing (balustrade)	43 : L : 1	Ceiling
43 : E : 1	Porch Handrail (top)	43 : L : 2	Ceiling (#1)
43 : F : 1	Door	43 : L : 3	Ceiling (#2)



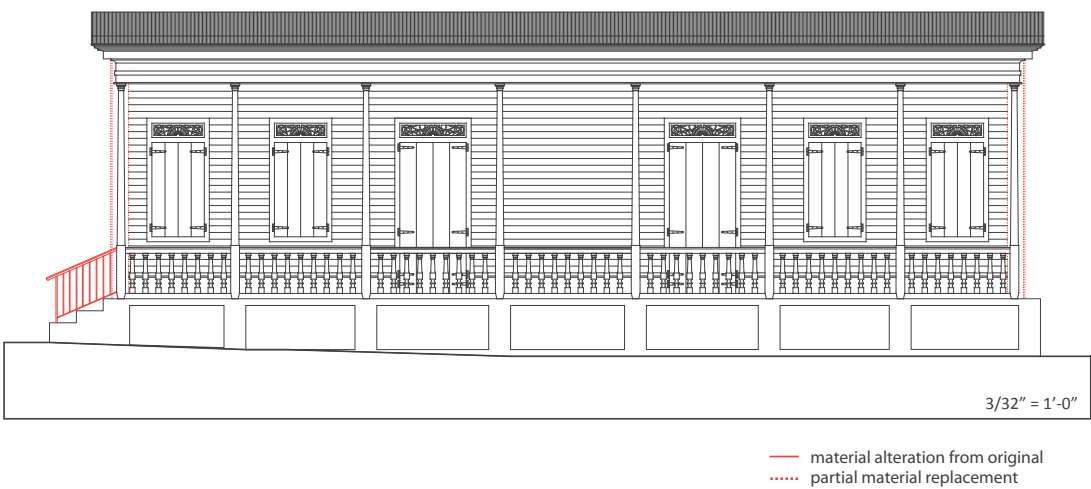
GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

[Existing Condition]



[Map of Material Alterations]



GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 48 Santiago Palmer Street

[Building Data Form]

Address: 48 N. Santiago Palmer Street

Date of Construction: ~1890

Current Owner: Rovira Calimario

Description:

Type: wooden construction No. of Stories: 1 Bays: 6

Alterations to Structure:

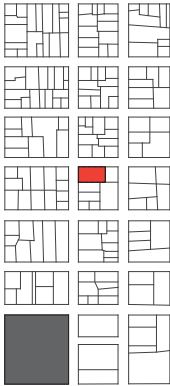
original handrail replaced with aluminum, bottom rail of railing replaced with iron, south end of cornice has been partially replaced, door hardware has been changed, original wooden columns replaced with galvanized pipe

Documentation:

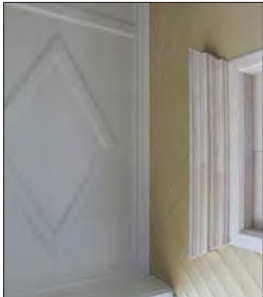
Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:

ocular, exposures, cross-sections



Architectural Details:



Material Description:

Architectural Element	Material
Body/Walls	wood, diagonal siding
Building Base	concrete
Columns	galvanized metal
Porch Railing	iron
Porch Handrail	aluminum
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	wood (side elevation)
Window Sills	wood (side elevation)
Window Louvers/Shutters	wood
Ceiling	wood
Pavement	stone on concrete



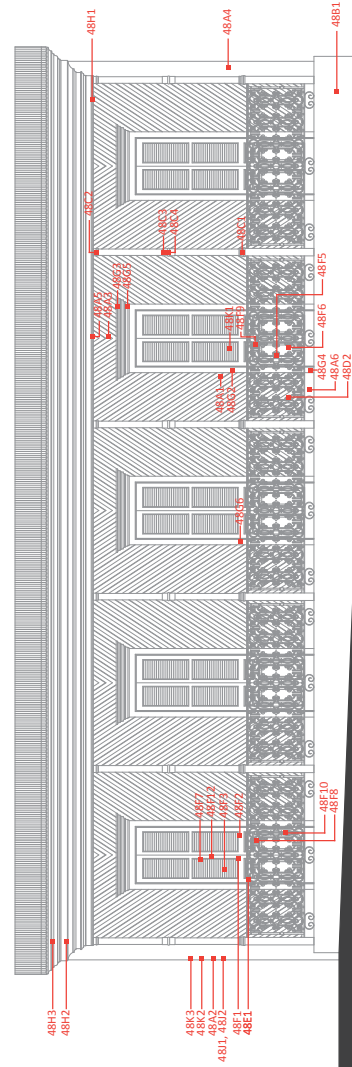
1870-1890

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 Santiago Palmer Street

[Sample Key]

Sample #	Sample Location	Sample #	Sample Location	Sample #	Sample Location
48 : A : 1	Wall (siding adjacent to door)	48 : F : 1	Door (1st door south, lft side panel, below door knob)	48 : G : 5	Door Frame (pediment)
48 : A : 2	Wall (siding at zinc panel side elevation)	48 : F : 2	Door (south, middle)	48 : G : 6	Door Frame (2nd door from north)
48 : A : 3	Wall (siding above south door)	48 : F : 3	Door (1st door, left shutter)	48 : H : 1	Cornice/Soffit (fascia board interior)
48 : A : 4	Wall (cornerboard)	48 : F : 5	Door (2nd from north, bottom panel lft side)	48 : H : 2	Cornice/Soffit (middle flat section)
48 : A : 5	Wall (crown moulding)	48 : F : 6	Door (2nd door, lft side shutter trim)	48 : H : 3	Cornice/Soffit (cornice)
48 : A : 6	Wall (baseboard)	48 : F : 7	Door (south rail between panels, right)	48 : J : 1	Window Sill (side elevation)
48 : B : 1	Base	48 : F : 8	Door (2nd from south, panel flat)	48 : J : 2	Window Sill (side elevation)
48 : C : 1	Column (joint)	48 : F : 9	Door (south lower panel moulding)	48 : K : 1	Door Shutters (2nd door from north)
48 : C : 2	Column (capital, 2nd to last from north side)	48 : F : 10	Door Railing (stile 1st door north middle)	48 : K : 2	Door Shutters (side elevation)
48 : C : 3	Column (center detail, 2nd to last north)	48 : F : 12	Door Frame (2nd from north, north side bottom)	48 : K : 3	Window Shutters (center, side elevation)
48 : C : 4	Column (joint)	48 : G : 1	Door Frame (2nd from north side)	48 : L : 1	Ceiling (triangle edge)
48 : D : 2	Porch Railing (middle)	48 : G : 2	Door Frame (pediment top)	48 : H : 4	Cornice/Soffit (lower edge)
48 : D : 4	Door Railing (1st door north)	48 : G : 3	Door Frame (at baseboard)		
48 : E : 1	Porch Handrail (at door, 1st from lft)	48 : G : 4			

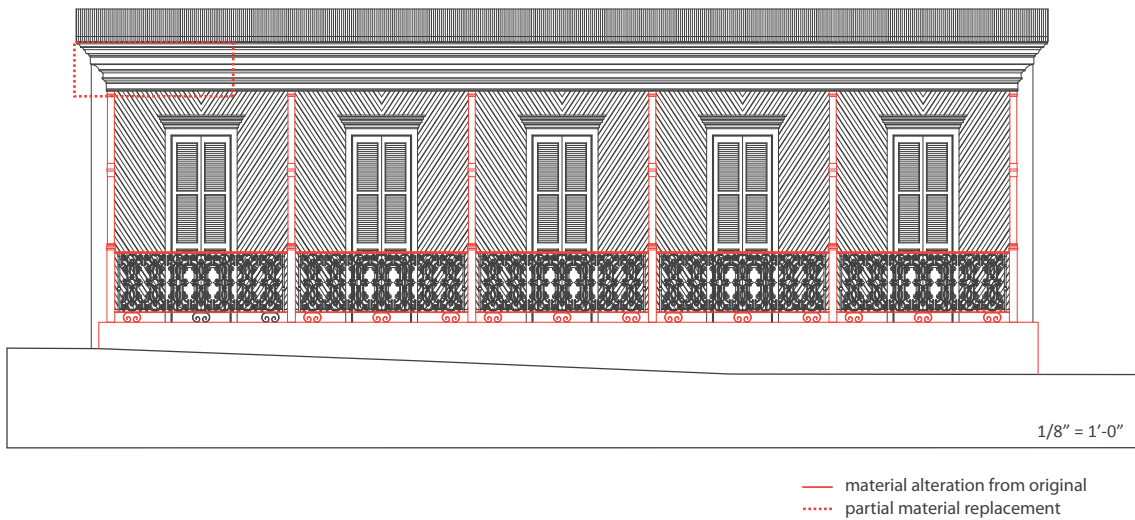


GUAYAMA HISTORIC PAINT STUDY
Guayama, Puerto Rico
48 Santiago Palmer Street

[Existing Condition]



[Map of Material Alterations]



GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 88 N. Santiago Palmer Street

[Building Data Form]

Address: 88 N. Santiago Palmer Street

Date of Construction: ~1900

Current Owner: Gregorio Vazquez

Description:

Type: wood construction No. of Stories: 1 Bays: 3

Alterations to Structure:

door shutters have been replaced with aluminum louvers, glass on doors has been replaced, wood columns have been replaced with galvanized pipe, south side of cornice has been partially replaced, original balusters replaced with cast iron decorative panels, bottom rail of railing replaced with iron

Documentation:

Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:

ocular, exposures, cross-sections

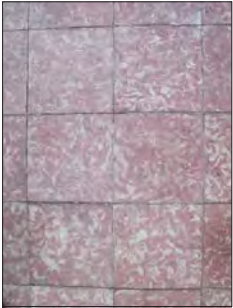
Architectural Details:



railing



transom over door



tile



siding

Material Description:

Architectural Element	Material
Body/Walls	wood, beaded siding
Building Base	concrete
Columns	galvanized metal
Porch Railing	iron
Porch Handrail	wood
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	-
Window Sills	-
Window Louvers/Shutters	-
Ceiling	wood
Pavement	tile on concrete



Guayama, Puerto Rico
102 N. Santiago Palmer Street

Current Owner: Tomas Diaz Vazquez

Type: wooden construction	No. of Stories: 1	Bays: 2

columns replaced with galvanized metal poles, siding partially replaced below window, possible conversion of door into window at far north bay, window has new aluminum louvers, original balusters replaced with cast iron decorative panels, bottom rail of railing replaced with iron, door not original

Historic Documentation from Guayama Historic Zoning Commission

ocular, exposures, samples extracted but not fully examined



Architectural Element	Material
Body/Walls	wood, cove siding
Building Base	concrete
Columns	galvanized metal
Porch Railing	iron
Porch Handrail	wood
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	wood
Window Sills	wood
Window Louvers/Shutters	aluminum
Ceiling	wood
Pavement	tile on concrete

GUAYAMA HISTORIC PAINT STUDY Guayama, Puerto Rico 106 N. Santiago Palmer Street

[Building Data Form]

Address: 106 N. Santiago Palmer Street
Date of Construction: ~1910
Current Owner: William C. Perez Ortiz

Description:

Type: wooden construction No. of Stories: 1 Bays: 3

Alterations to Structure:

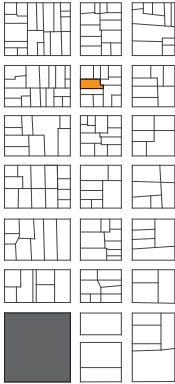
doors have been replaced with windows at far north and south bays, new siding
infill under old doors at new windows, original balusters replaced with cast iron
decorative panels, original columns replaced with galvanized metal

Documentation:

Historic Documentation from Guayama Historic Zoning Commission

Method of Investigation:

ocular, exposures, samples extracted but not fully examined



Architectural Details:



railing



window sill



tile



transom and pediment detail lower door

Material Description:

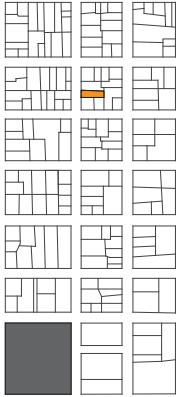
Architectural Element	Material
Body/Walls	wood, cove
Building Base	concrete
Columns	galvanized metal
Porch Railing	iron
Porch Handrail	wood
Door	wood
Door Enframment	wood
Cornice	wood
Window Frame	wood
Window Sills	wood
Window Louvers/Shutters	aluminum
Ceiling	wood
Pavement	tile on concrete



Photo courtesy of NCH and PHDP

GUAYAMA HISTORIC PAINT STUDY
Guayama, Puerto Rico
104 N. Santiago Palmer Street

[Building Data Form]



Address: 104 N. Santiago Palmer Street
Date of Construction: ~1910*
Current Owner: Jose Torregosa

Description:
Type: wooden construction No. of Stories: 1 Bays: 3

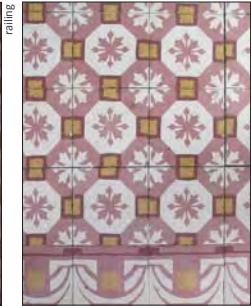
Alterations to Structure:

doors have been replaced with windows at far north and south bays, new siding
infill under old doors at new windows, south corner of cornice has been replaced,
original balusters replaced with cast iron decorative panels

Documentation:
Historic Documentation from Guayama Historic Zoning Commission

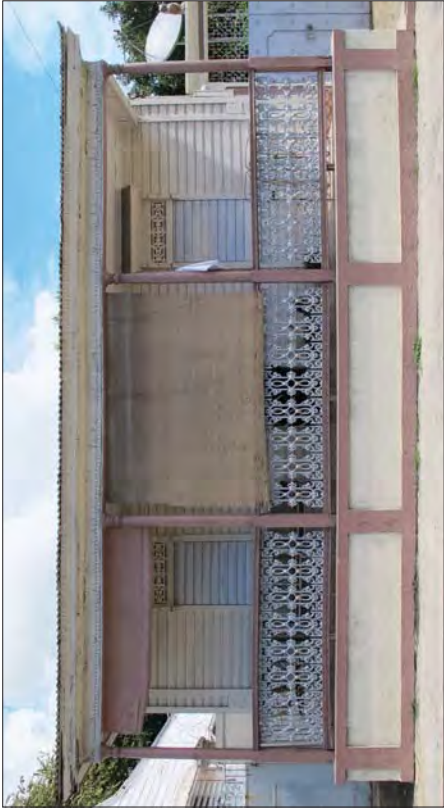
Method of Investigation:
ocular, exposures, samples extracted but not fully examined

Architectural Details:



Material Description:

Architectural Element	Material
Body/Walls	wood, beaded siding
Building Base	concrete
Columns	wood
Porch Railing	iron
Porch Handrail	wood
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	wood
Window Sills	wood
Window Louvers/Shutters	aluminum
Ceiling	wood
Pavement	tile on concrete



Guayama, Puerto Rico
108 N. Santiago Palmer Street

Current Owner: Benito Cruz Melendez

Type: wooden construction	No. of Stories: 1	Bays: 2

columns partially replaced with concrete, no original siding present, window has new aluminum louvers, original balusters replaced with cast iron decorative panels, trim around windows not original, door not original, glass at transom not original

Historic Documentation from Guayama Historic Zoning Commission

ocular, exposures, samples extracted but not fully examined



Architectural Element	Material
Body/Walls	wood siding
Building Base	concrete
Columns	concrete base, wood top
Porch Railing	iron
Porch Handrail	wood
Door	wood
Door Enframement	wood
Cornice	wood
Window Frame	wood
Window Sills	wood
Window Louvers/Shutters	aluminum
Ceiling	wood
Pavement	tile on concrete

APPENDIX E: MASTER SAMPLE LIST

[Master Sample List]

<i>Sample #</i>	<i>Extraction Location</i>
3 : A : 1	Wall (siding)
3 : A : 2	Wall (siding next to south door)
3 : A : 3	Wall (baseboard)
3 : A : 4	Wall (baseboard, center)
3 : A : 5	Wall (moulding diamond pattern, above south door)
3 : A : 6	Wall (crown, dentils above south door)
3 : A : 7	Wall (crown moulding above south door)
3 : B : 1	Base
3 : C : 1	Column (#2 from the south, middle detail of joint)
3 : C : 2	Column (#2 from the south, flower detail)
3 : C : 3	Column (#2 from south, top)
3 : C : 4	Column (at railing)
3 : C : 5	Column (base)
3 : D : 1	Porch Railing (middle)
3 : E : 1	Handrail (#3 from north)
3 : F : 1	Door (upper panel)
3 : F : 2	Door (flat of upper panel, center)
3 : F : 3	Door (stile)
3 : F : 4	Door (panel outer frame bottom, 2nd door from the north)
3 : F : 5	Door (panel middle frame)
3 : F : 6	Door (side stile)
3 : F : 7	Door (shutter)
3 : G : 1	Door Frame (south, left side top)
3 : G : 2	Door Frame (stile @ left side near joint)
3 : G : 3	Door Frame (pediment, underside of trim)
3 : G : 4	Door Frame (pediment, top)
3 : G : 5	Door Frame (pediment detail in diamond)
3 : H : 1	Cornice/Soffit (cornice)
3 : H : 2	Cornice/Soffit (dentil)
3 : H : 3	Cornice/Soffit (curve of cornice, 1st piece of trim below roof)
3 : H : 4	Cornice/Soffit (bottom of cornice)
3 : H : 5	Cornice/Soffit (cornice, top element)
3 : L : 1	Ceiling (detail above south door, corner square)
3 : L : 2	Ceiling (detail above south door, diamond)
3 : L : 3	Ceiling (above south door)
43 : A : 1	Wall (siding above door)
43 : A : 2	Wall (siding adjacent to door)
43 : A : 3	Wall (baseboard)

[Master Sample List Continued]

43 : A : 4	Wall (cornerboard, north)
43 : A : 5	Wall (trim, crown moulding above south door)
43 : B : 1	Base (central panel)
43 : B : 2	Base (dividers below columns)
43 : C : 1	Column (middle shaft)
43 : C : 2	Column (middle base)
43 : C : 3	Column (capital)
43 : D : 1	Porch Railing (bottom rail)
43 : D : 2	Porch Railing (balustrade)
43 : E : 1	Porch Handrail (top)
43 : F : 1	Door
43 : G : 1	Door Frame (top below transom, south)
43 : G : 2	Door Frame
43 : G : 3	Door Frame (transom above south door)
43 : G : 4	Door Frame (top, south)
43 : H : 1	Cornice/Soffit (fascia board)
43 : H : 2	Cornice/Soffit (cornice, lower level flat board)
43 : H : 4	Cornice/Soffit (middle moulding)
43 : H : 5	Cornice/Soffit (underside board, soffit)
43 : I : 1	Window Frame
43 : K : 1	Window Shutter (edge #2)
43 : K : 2	Window Shutter (right panel, middle)
43 : L : 1	Ceiling
43 : L : 2	Ceiling (#1)
43 : L : 3	Ceiling (#2)
6 : A : 1	Wall (siding, west side of main door)
6 : A : 2	Wall (trim board at wall, original)
6 : A : 3	Wall (baseboard)
6 : A : 4	Wall (trim directly above siding)
6 : B : 1	Base (frothing under columns)
6 : B : 2	Base (right hand corner of frosting)
6 : B : 3	Base (middle panel, bottom)
6 : B : 4	Base (middle panel)
6 : C : 1	Column (capital)
6 : C : 2	Column (middle)
6 : D : 1	Porch Railing (middle)
6 : D : 2	Porch Railing (middle #2)
6 : D : 3	Porch Railing (base)
6 : E : 1	Porch Handrail
6 : G : 1	Door Frame (top detailing)
6 : G : 2	Door Frame (middle door, transom)
6 : G : 3	Door Frame (pediment, flat detail)

[Master Sample List Continued]

6 : G : 4	Door Frame (pediment, west detail)
6 : G : 5	Door Frame (top of pediment main door)
6 : H : 1	Cornice/Soffit (fascia board west)
4 : A : 1	Wall (siding)
4 : A : 2	Wall (crown moulding above main door)
4 : A : 3	Wall (baseboard)
4 : A : 4	Wall (baseboard*)
4 : B : 1	Base
4 : B : 2	Base (panel interior edge)
4 : B : 3	Base (frame)
4 : B : 4	Base (middle panel)
4 : C : 1	Column (#6 east end shaft)
4 : C : 2	Column (east bottom)
4 : C : 3	Column (pillar at east end, engaged with wall)
4 : D : 1	Porch Railing (balustrade)
4 : D : 2	Porch Railing (bottom rail)
4 : E : 1	Porch Handrail (underside, interior side)
4 : F : 1	Door (stile)
4 : F : 2	Door (bottom)
4 : F : 3	Door (panel)
4 : F : 4	Door (main panel, center frame)
4 : F : 5	Door (main panel, recessed frame)
4 : F : 6	Door (entry, left hand side center stile)
4 : F : 7	Door (upper panel)
4 : F : 8	Door (shutter)
4 : F : 9	Door Frame (east door, left side panel, outer frame)
4 : G : 1	Door Frame (lower)
4 : G : 2	Door Frame (horizontal divider, west)
4 : G : 3	Door Frame (horizontal divider, central Door)
4 : G : 4	Door Frame (panel above main door)
4 : G : 5	Door Frame (muntins of sidelight)
4 : G : 6	Door Frame (main door, pediment west side)
4 : G : 7	Door Frame (main door, pediment west side)
4 : G : 8	Door Frame (door 2nd from west, pediment west side)
4 : G : 9	Door Frame (transom rail)
4 : G : 10	Door Frame (main door, transom)
4 : G : 11	Door Frame (pediment trim below top)
4 : G : 12	Door Frame (sidelight inner panel)
4 : G : 13	Door Frame (top panel, outer frame of sidelight panel)
4 : H : 1	Cornice/Soffit (cornice lower edge)
48 : A : 1	Wall (siding adjacent to door)
48 : A : 2	Wall (siding at side elevation)

[Master Sample List Continued]

48 : A : 3	Wall (siding above south door)
48 : A : 4	Wall (cornerboard)
48 : A : 5	Wall (crown moulding)
48 : A : 6	Wall (baseboard)
48 : B : 1	Base
48 : C : 1	Column (joint)
48 : C : 2	Column (capital, 2nd to last from north side)
48 : C : 3	Column (center detail, 2nd to last north)
48 : C : 4	Column (joint)
48 : D : 2	Porch Railing (middle)
48 : D : 4	Porch Railing (middle, 1st door north)
48 : E : 1	Porch Handrail (at door, 1st from left)
48 : F : 1	Door (1st door south, left side panel, below door knob)
48 : F : 2	Door (south, middle)
48 : F : 3	Door (1st door, left shutter)
48 : F : 5	Door (2nd from north, bottom panel left side)
48 : F : 6	Door (2nd from north bottom panel left side)
48 : F : 7	Door (1st door, left side shutter trim)
48 : F : 8	Door (south rail between panels, right)
48 : F : 9	Door (2nd from north, panel flat)
48 : F : 10	Door (south lower panel moulding)
48 : F : 12	Door (stile 1st door north middle)
48 : G : 1	Door Frame (2nd from north, north side bottom)
48 : G : 2	Door Frame (2nd from north side)
48 : G : 3	Door Frame (pediment top)
48 : G : 4	Door Frame (at baseboard)
48 : G : 5	Door Frame (pediment)
48 : G : 6	Door Frame (3rd door from south)
48 : H : 1	Cornice/Soffit (fascia board interior)
48 : H : 2	Cornice/Soffit (middle flat section)
48 : H : 3	Cornice/Soffit (cornice)
48 : J : 1	Window Sill (side elevation)
48 : J : 2	Window Sill (side elevation)
48 : K : 1	Door Shutters (2nd door from north)
48 : K : 2	Door Shutters (side elevation)
48 : K : 3	Window Shutters (center, side elevation)
48 : L : 1	Ceiling (triangle edge)
88 : A : 2	Wall (siding)
88 : A : 1	Wall (siding- lower)
88 : A : 3	Wall (siding)
88 : A : 4	Wall (cornerboard south)
88 : A : 5	Wall (cornerboard north)

[Master Sample List Continued]

88 : B : 1	Base
88 : B : 2	Base
88 : C : 1	Column #2 (bottom 1/3 @ rail height)
88 : C : 2	Column #3 (above rail)
88 : D : 1	Porch Railing
88 : D : 2	Porch Railing (@ stairs)
88 : D : 3	Porch Railing (north end)
88 : E : 1	Porch Handrail (north end)
88 : F : 2	Door (upper panel)
88 : F : 1	Door (center panel)
88 : F : 3	Door (center rail)
88 : F : 4	Door (stile)
88 : F : 5	Door (left side)
88 : G : 1	Door Frame
88 : G : 2	Door Frame
88 : G : 3	Door Frame (transom)
88 : G : 4	Door Frame(transom frame)
88 : G : 5	Door Frame (transom north)
88 : G : 6	Door Frame (top north)
88 : H : 1	Cornice (fascia board & soffit, south)
88 : H : 2	Cornice (top)
88 : H : 3	Cornice (middle)
88 : H : 4	Cornice (bottom)
88 : L : 1	Ceiling (south end)
102 : A : 1	Wall (siding middle)
102 : A : 2	Wall Siding (by window)
102 : A : 3	Wall (siding north)
102 : A : 4	Wall (siding)
102 : A : 5	Wall (siding above window)
102 : A : 6	Wall (siding next to old sample)
102 : A : 7	Wall (siding groove-less layers)
102 : A : 8	Wall (siding at attic)
102 : A : 9	Wall (baseboard north)
102 : A : 10	Wall (cornerboard north)
102 : A : 11	Wall (cornerboard south)
102 : A : 12	Wall (crown molding above window)
102 : B : 1	Base (border detail)
102 : B : 2	Base (interior corner of frame)
102 : B : 3	Base (center panel)
102 : C : 1	Column (porch #3)
102 : D : 1	Porch Railing (detail at north)
102 : D : 2	Porch Railing (north)

[Master Sample List Continued]

102 : E : 1	Porch Handrail (north)
102 : F : 1	Door (sidelight rail)
102 : F : 2	Door (under key hole)
102 : G : 1	Door Frame (top)
102 : G : 2	Door Frame (top)
102 : G : 3	Door Frame (interior)
102 : G : 4	Door Frame (adj to sidelight)
102 : G : 5	Door Frame (transom dividers)
102 : H : 1	Cornice (porch)
102 : H : 2	Cornice (porch)
102 : H : 3	Cornice (fascia board north)
102 : H : 4	Cornice (fascia board north)
102 : I : 1	Window Frame (attic)
102 : I : 2	Window Frame
102 : I : 3	Window Frame
102 : J : 1	Window Sill (corner)
102 : J : 2	Window Sill (detail trim below sill)
102 : L : 1	Ceiling (porch above window)
104 : A : 1	Wall (siding)
104 : A : 2	Wall (siding)
104 : A : 3	Wall (baseboard)
104 : A : 4	Wall (crown moulding)
104 : A : 5	Wall (cornerboard middle panel)
104 : A : 6	Wall (cornerboard far south panel)
104 : B : 1	Building Base (inside)
104 : B : 2	Building Base (outside)
104 : B : 3	Base (concrete frame)
104 : B : 4	Base (center panel)
104 : C : 1	Column
104 : C : 2	Column
104 : C : 3	Column (capital)
104 : C : 4	Column (body)
104 : C : 5	Column (base)
104 : C : 6	Column (shaft #2 from south)
104 : C : 7	Column (top of #2 from south)
104 : D : 1	Porch Railing (middle)
104 : D : 2	Porch Railing
104 : D : 3	Porch Railing (bottom rail)
104 : E : 1	Porch Handrail
104 : E : 2	Porch Handrail
104 : G : 1	Door Frame
104 : G : 2	Door Frame (transom/ventilator)

[Master Sample List Continued]

104 : G : 3	Door Frame (dentil molding)
104 : G : 2	Door Frame (cap of dentil molding)
104 : G : 5	Door Frame (top)
104 : G : 6	Door Frame
104 : G : 7	Door Frame (pediment soffit)
104 : G : 8	Door Frame (moulding above pediment of door)
104 : G : 9	Door Frame (transom above door)
104 : G : 10	Door Frame (sidelight frame)
104 : G : 11	Door Frame (sidelight sill)
104 : H : 1	Cornice/Soffit (crown)
104 : H : 2	Cornice/Soffit (fascia)
104 : H : 3	Cornice (top of dentils)
104 : H : 4	Cornice (panel rows of dentils)
104 : H : 5	Cornice (upper most row of dentils)
104 : H : 6	Cornice (Fascia below upper- 3rd row of dentils)
104 : H : 7	Cornice (bottom)
104 : I : 1	Window Frame
104 : I : 2	Window frame (stile)
104 : I : 3	Window Frame (surround north side)
104 : I : 4	Window Frame (dentils)
104 : I : 5	Window Frame (pediment above)
104 : I : 6	Window Frame (pediment side detail)
104 : J : 1	Window Sill
104 : L : 1	Ceiling
106 : A : 1	Wall (siding)
106 : A : 2	Wall (siding- left addition)
106 : A : 3	Wall (siding -groove)
106 : A : 4	Wall (siding)
106 : A : 5	Wall (siding)
106 : A : 6	Wall (siding by door bell)
106 : A : 7	Wall (baseboard on porch)
106 : B : 1	Building Base
106 : B : 2	Building Base
106 : B : 3	Base (middle bottom base)
106 : B : 4	Base(left side top)
106 : B : 5	Base (right side top)
106 : B : 6	Base (right side bottom)
106 : B : 7	Base (south middle wall)
106 : B : 8	Base (north side bottom)
106 : C : 1	Column
106 : C : 2	Column (north)
106 : D : 1	Porch Railing

[Master Sample List Continued]

106 : D : 2	Porch Railing (middle #1)
106 : D : 3	Porch Railing (middle #3)
106 : D : 4	Porch Railing (south side bottom)
106 : D : 5	Porch Railing (rt side under handrail)
106 : D : 6	Porch Railing (center detail)
106 : D : 7	Porch Railing (right top interior)
106 : E : 1	Porch Handrail
106 : E : 2	Porch Handrail
106 : E : 3	Porch Handrail (north end)
106 : E : 4	Porch Handrail (north interior)
106 : G : 1	Door Frame
106 : G : 2	Door Frame
106 : G : 3	Door Frame (Transom outer Frame)
106 : G : 4	Door Frame (Transom divider)
106 : G : 5	Door Frame (top trim/cornice)
106 : H : 1	Cornice/Soffit (soffit)
106 : H : 2	Cornice (SE wall just above soffit/stairs)
106 : H : 3	Cornice/Soffit (fascia)
106 : H : 4	Cornice (north soffit)
106 : I : 1	Window Frame
106 : J : 1	Window Sill
106 : J : 2	Window Sill
106 : J : 3	Window Sill (detail trim below)
106 : J : 4	Window Sill (detail trim below)
106 : J : 5	Window Sill (detail trim below)
106 : L : 1	Trim (cornerboard)
106 : L : 2	Ceiling (center @ porch)
106 : M : 1	other (Alero-left)
106 : M : 2	Other (Gate)
108 : A : 1	Wall (siding)
108 : A : 2	Wall (siding north)
108 : A : 3	Wall (siding above door)
108 : A : 4	Wall (siding adjacent to stairs)
108 : A : 5	Wall (side elevation)
108 : A : 6	Wall (siding)
108 : A : 7	Wall (siding north)
108 : A : 8	Wall (cornerboard @side of house)
108 : B : 1	Building Base
108 : B : 2	Building Base (interior)
108 : B : 3	Building Base
108 : B : 4	Base (north side of bldg)
108 : B : 5	Base (under window)

[Master Sample List Continued]

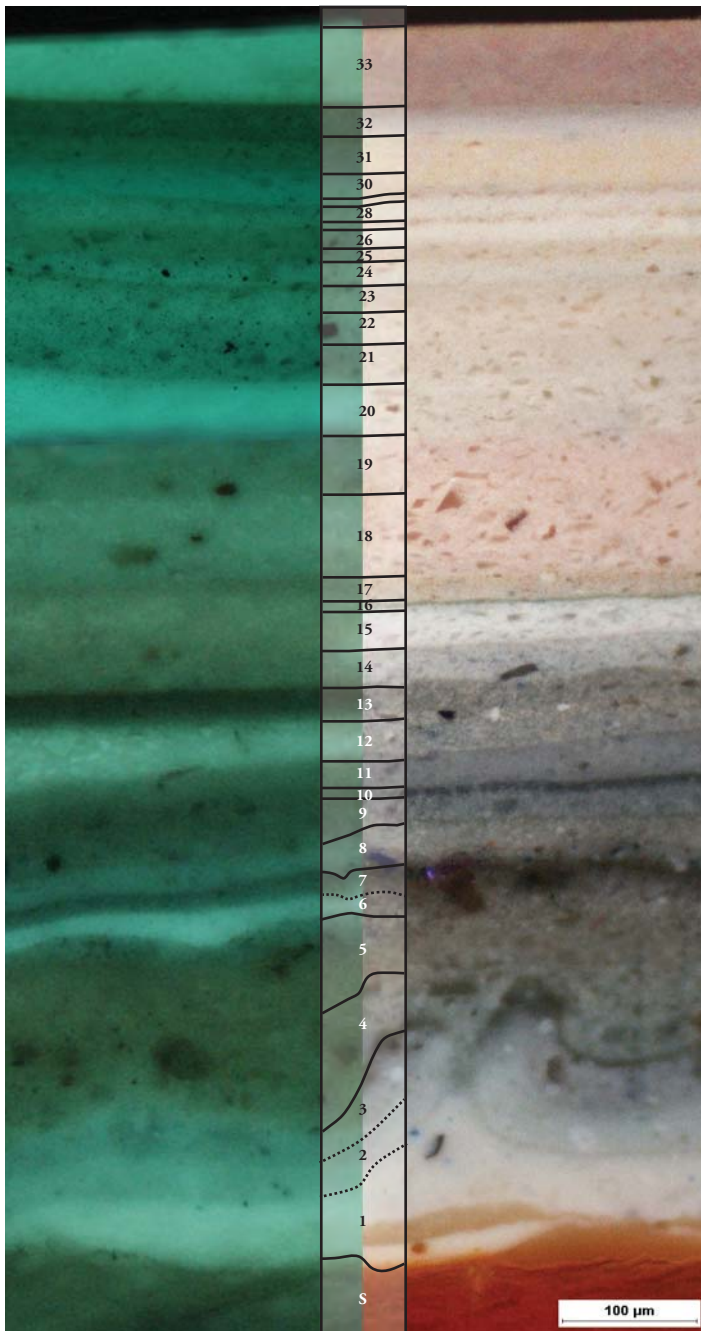
108 : B : 6	Base (adjacent to step)
108 : B : 7	Base (bottom)
108 : B : 8	Base (middle)
108 : B : 9	Base (frame)
108 : B : 10	Base (frame at top)
108 : C : 1	Column (bottom)
108 : C : 2	Column (middle)
108 : C : 3	Column
108 : C : 4	Column (top capital)
108 : C : 5	Column (capital transition piece)w
108 : C : 6	Column (capital detail between scrolls)
108 : D : 1	Porch Railing (lower)
108 : D : 2	Porch Railing (lower)
108 : D : 3	Porch Railing (middle)
108 : D : 4	Porch Railing (inside bottom left)
108 : D : 5	Porch Railing (trim right side against wall)
108 : D : 6	Porch Railing (middle)
108 : D : 7	Porch Railing (middle)
108 : E : 1	Porch Handrail (lower)
108 : E : 2	Porch Handrail
108 : G : 2	Door Frame (transom north)
108 : G : 3	Door Frame (top left)
108 : H : 1	Cornice (middle)
108 : H : 2	Cornice (roof at cornice beadboard)
108 : H : 3	Cornice (soffit)
108 : I : 1	Window Frame (top right)
108 : I : 2	Window Frame (attic top ext)
108 : I : 3	Window Frame (north side of bldg)
108 : I : 4	Window Frame (transom)
108 : J : 1	Window Sill
108 : L : 1	Ceiling
108 : L : 2	Ceiling

APPENDIX F: CROSS SECTION MICROSCOPY WITH FLUORESCENT & REFLECTIVE LIGHT

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

22	25	tan
21	24	off white
20	23	*tan
19	22	cream
18	21	cream
17	20	cream
16	19	pink
15	18	pink
14	17	pink tan
13	16	green
12	15	off white
11	14	*light blue grey
10	13	medium grey
9	12	light blue grey
8	11	*light grey blue
7	10	dark blue grey
6	9	light blue grey
5	8	*light grey
4	7	*dark grey
	6	medium grey
3	5	*medium grey
2	4	*blue grey
	3	*medium blue grey
1	2	light grey
	1	white
		substrate

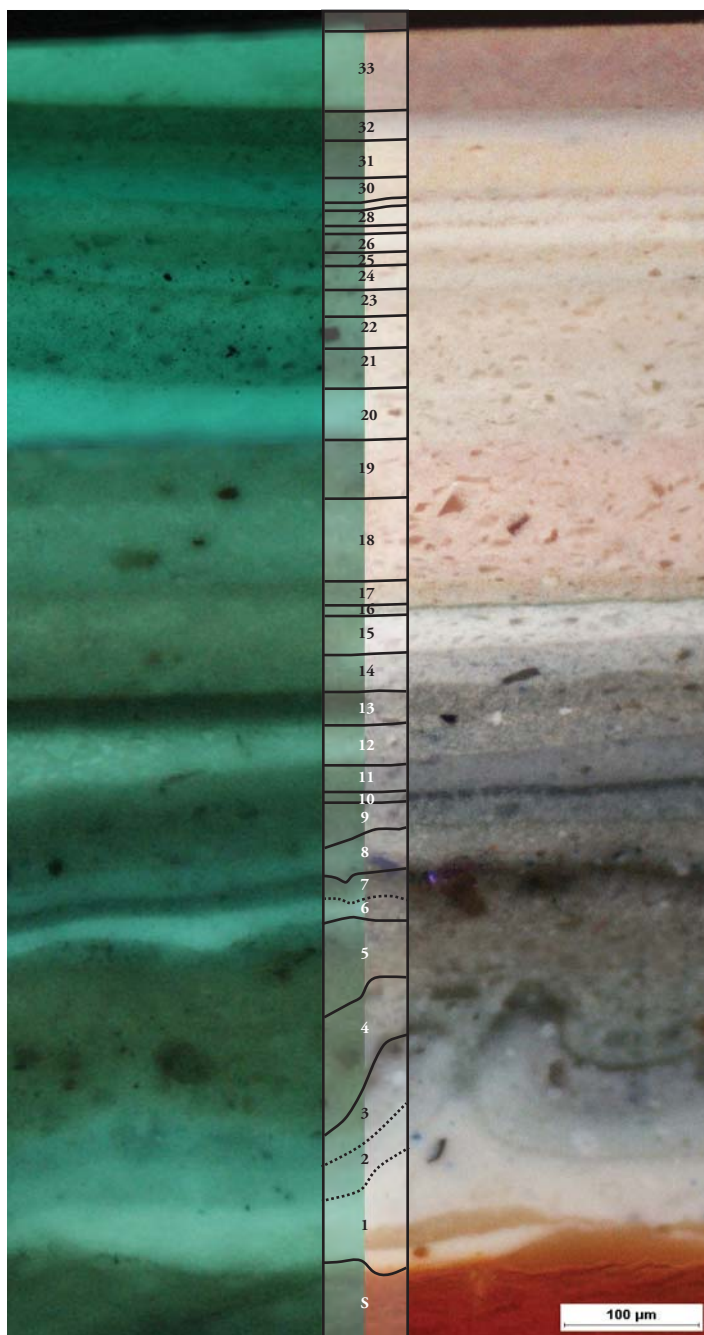
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

30	33
29	32
28	31
27	30
26	29
25	28
24	27
23	26

/ : Fracture * : Dirt

Conclusions

Color: F1: medium blue grey

Munsell Color F1: 10B 7/1

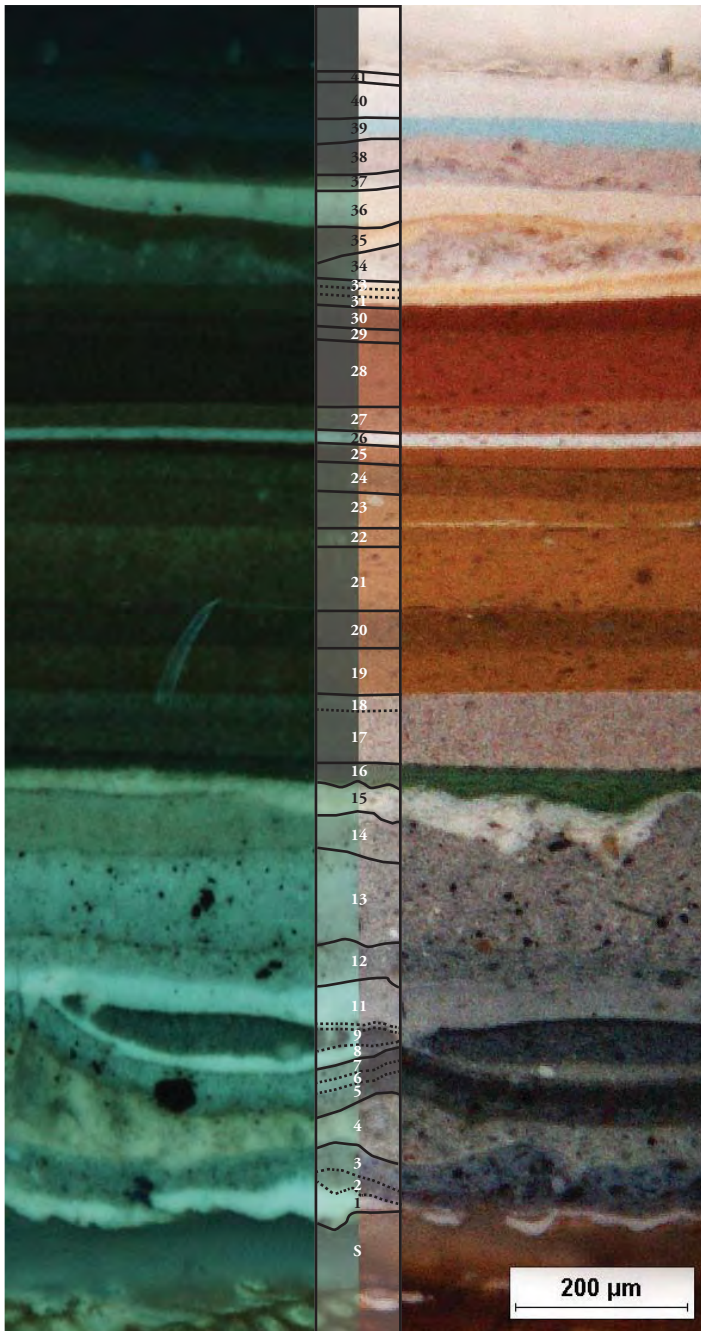
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :A: 4	Element: wall	Date Sampled: 02/13/11
Sample Location: baseboard		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

17	25	light red orange
16	24	/*dark brown orange
15	23	brown orange
14	22	brown orange
13	21	brown orange
12	20	dark brown orange
11	19	brown orange
10	18	grey tan
	17	grey tan
9	16	*green
8	15	*light grey
7	14	*medium grey
6	13	medium grey
5	12	blue grey
4	11	light blue grey
	10	dark blue grey
	9	medium blue grey
	8	light grey
3	7	medium grey
	6	dark grey
	5	medium grey
2	4	*light grey
1	3	blue grey
	2	medium grey
	1	white
		substrate

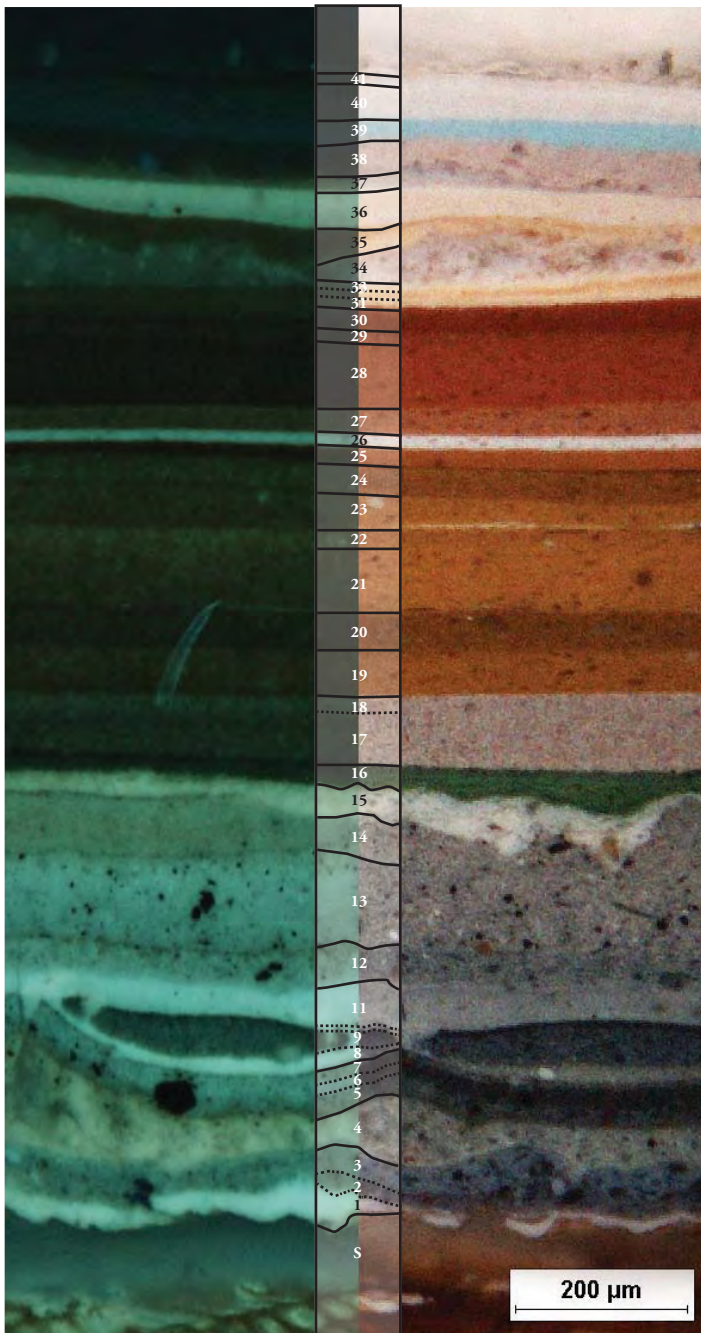
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :A: 4	Element: wall	Date Sampled: 02/13/11
Sample Location: baseboard		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

32	41	*cream
31	40	cream
30	39	gblue
29	38	pink
28	37	off white
27	36	yellow cream
26	35	orange yellow
25	34	off white
24	33	yellow
	32	orange yellow
	31	yellow
23	30	brown red
22	29	red orange
21	28	red orange
20	27	light red orange
18	26	white

/ : Fracture * : Dirt

Conclusions

Color: F1: blue grey

Munsell Color F1: 10B 5/2

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :B: 3	Element: building base	Date Sampled: 02/13/11
Sample Location: frame		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

19	25	/dark brown orange
18	24	dark brown orange
17	23	/brown orange
16	22	brown orange
15	21	brown orange
14	20	dark brown orange
13	19	red
12	18	grey tan
11	17	green
10	16	light blue grey
9	15	medium blue grey
8	14	grey
7	13	medium blue grey
6	12	grey
	11	medium blue grey
5	10	light blue grey
	9	light blue grey
4	8	*light grey
	7	light grey
3	6	*dark blue grey
2	5	grey white
	4	medium blue grey
1	3	*medium blue grey
	2	/light blue grey
	1	white
		substrate

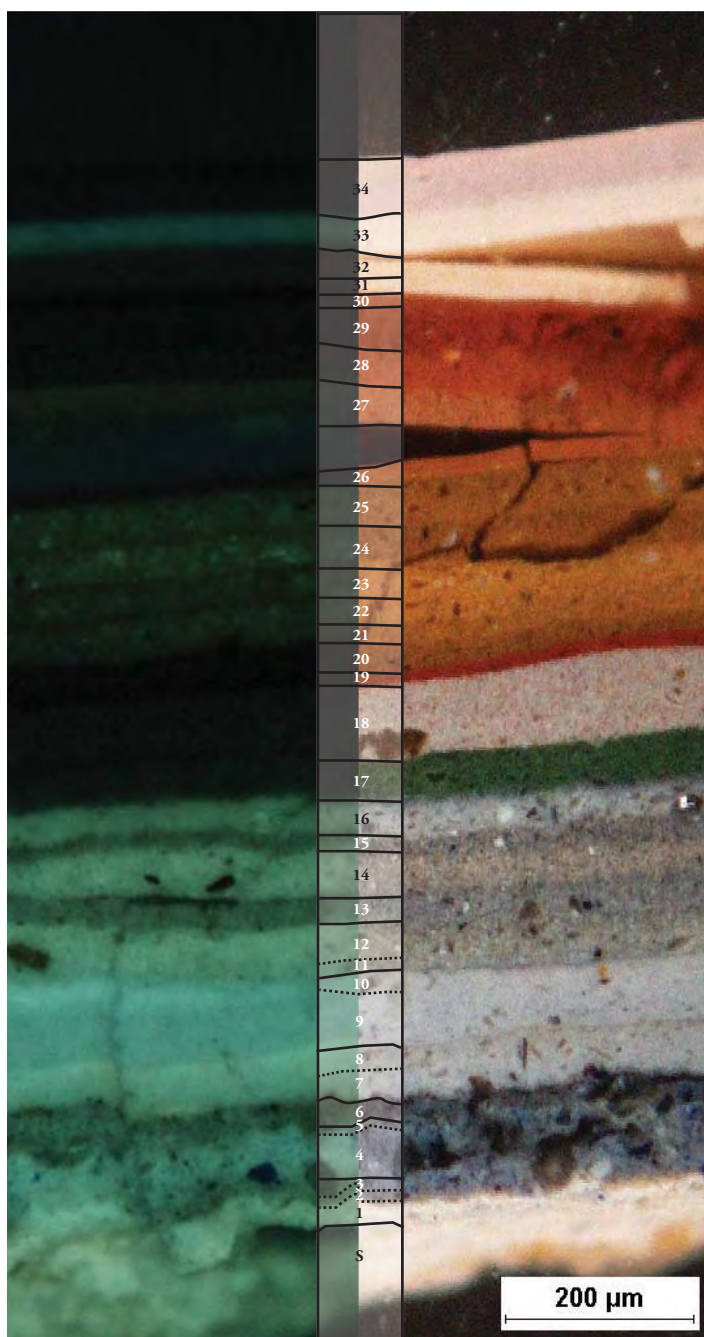
/: Fracture *: Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :B: 3	Element: building base	Date Sampled: 02/13/11
Sample Location: frame		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

28	34	pink
27	33	cream
26	32	/yellow cream
25	31	yellow cream
24	30	brown red
23	29	brown red
22	28	red orange
21	27	light red orange
20	26	/light red orange

/ : Fracture * : Dirt

Conclusions

Color: F1: medium blue grey

Munsell Color F1: 7.5B 7/2

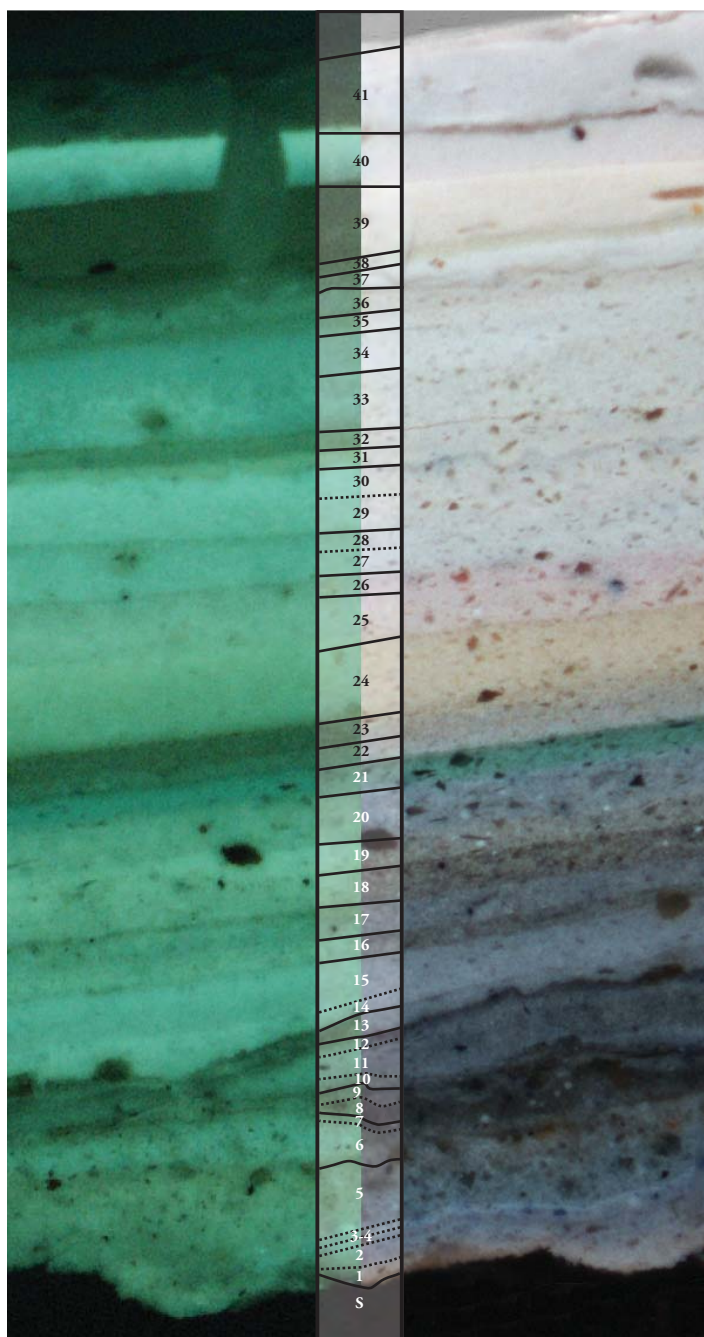
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :B: 4	Element: building base	Date Sampled: 02/13/11
Sample Location: middle panel		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

	25	pink
16	24	*yellow cream
15	23	grey tan
14	22	grey tan
13	21	green
12	20	light blue grey
11	19	grey
10	18	dark blue grey
9	17	blue grey
8	16	dark blue grey
7	15	light blue grey
	14	light blue grey
6	13	light blue grey
	12	blue grey
5	11	blue grey
	10	blue grey
4	9	blue grey
	8	dark blue grey
3	7	blue grey
	6	light green grey
2	5	green grey
	4	light blue grey
1	3	greyblue
	2	light blue grey
	1	light grey
		substrate

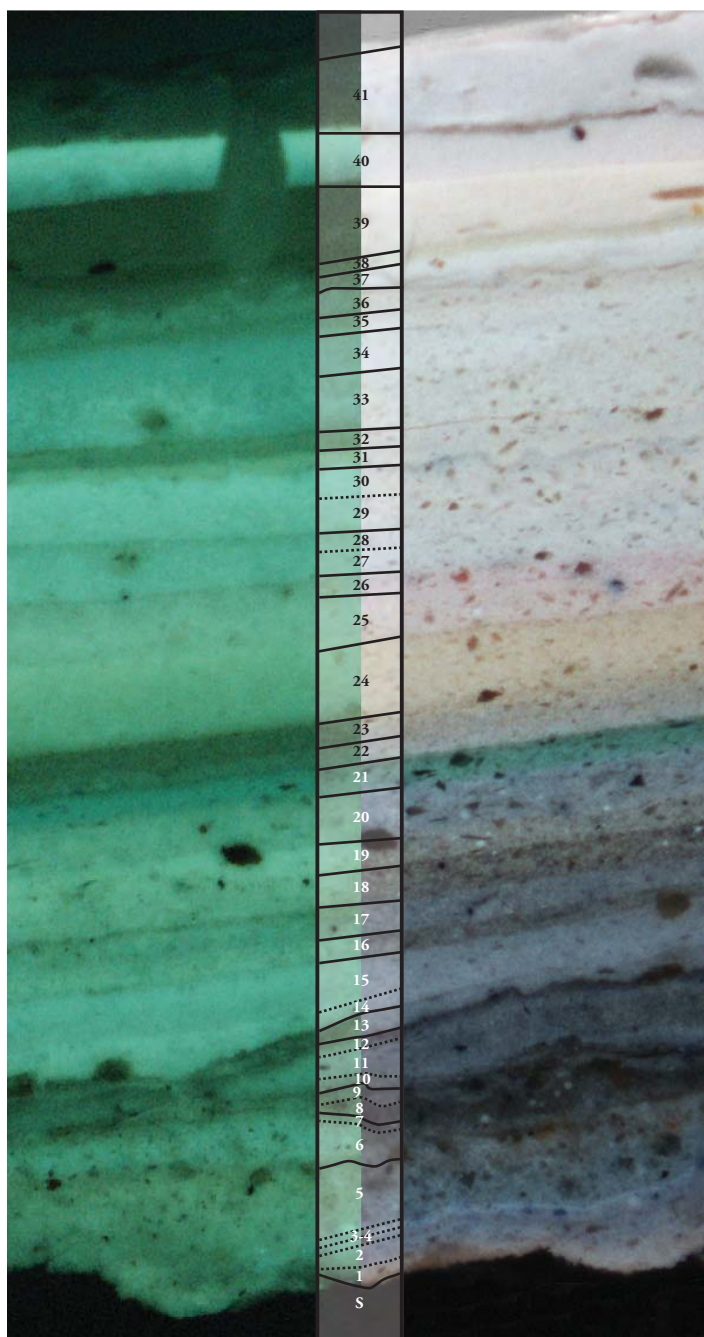
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :B: 4	Element: building base	Date Sampled: 02/13/11
Sample Location: middle panel		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

30	41	white
29	40	*off white
28	39	cream
27	38	yellow white
26	37	white
25	36	/light tan
24	35	off white
23	34	white
22	33	off white
21	32	/off white
20	31	off white
19	30	*off white
	29	off white
18	28	off white
	27	white
17	26	pink

/ : Fracture * : Dirt

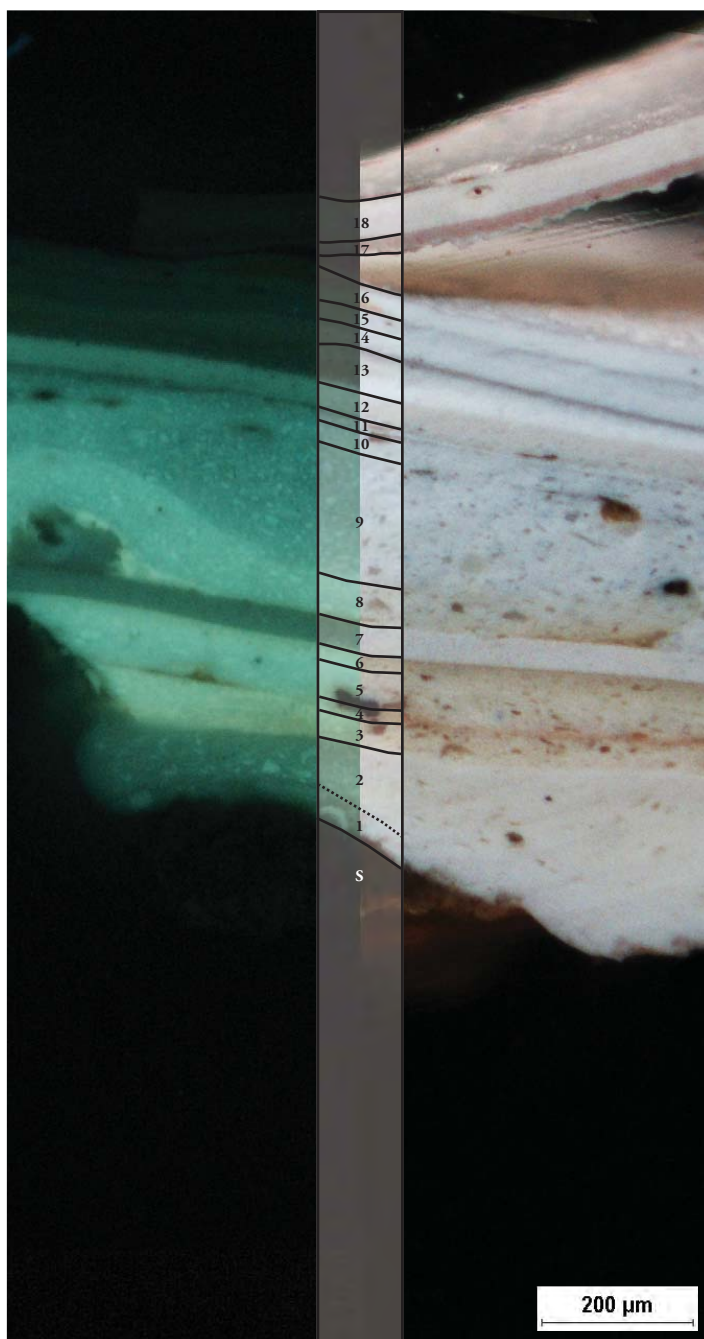
Conclusions

Color: F1: light blue grey
Munsell Color F1: 5B 7/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :C: 2	Element: column	Date Sampled: 02/13/11
Sample Location: east, bottom		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

17	19	cream
16	18	pink
15	17	/white
14	16	*white
13	15	white
12	14	*off white
11	13	*tan
10	12	*white
9	11	white
8	10	*white
7	9	cream
6	8	/*white
5	7	tan
4	6	cream
3	5	pink
2	4	cream
1	3	off white
	2	off white
	1	off white
		substrate

/: Fracture *: Dirt

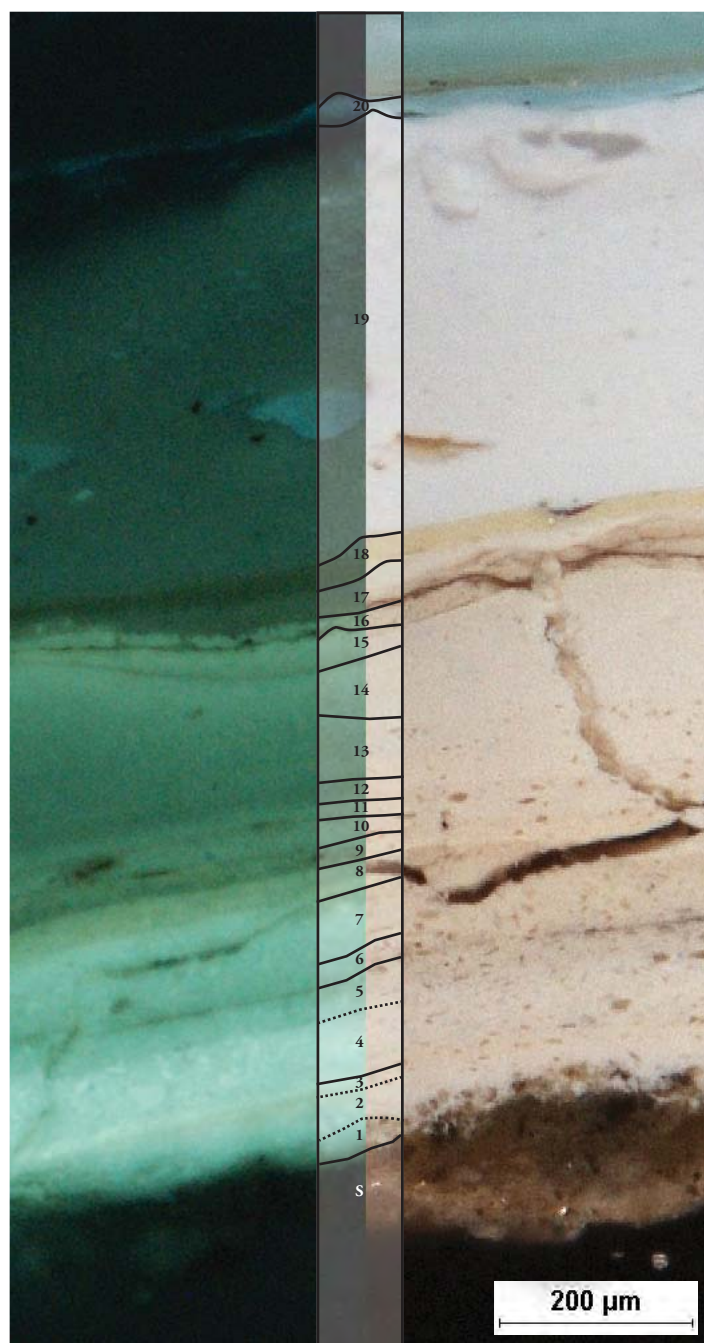
Conclusions

Color: F1: off white
Munsell Color F1: 10Y 9/1-10Y 9/2
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :D: 1	Element: porch railing	Date Sampled: 02/13/11
Sample Location: balustrade		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

17	20	blue
16	19	/off white
15	18	*yellow cream
14	17	off white
13	16	/tan
12	15	/cream
11	14	cream
10	13	cream
9	12	cream
8	11	cream
7	10	cream
6	9	cream
5	8	cream
4	7	/cream
3	6	cream
2	5	*tan
	4	off white
	3	light cream
1	2	light cream
	1	off white
		substrate

/: Fracture *: Dirt

Conclusions

Color: F1: cream

Munsell Color F1: 10Y 9/2

Probable Pigments:

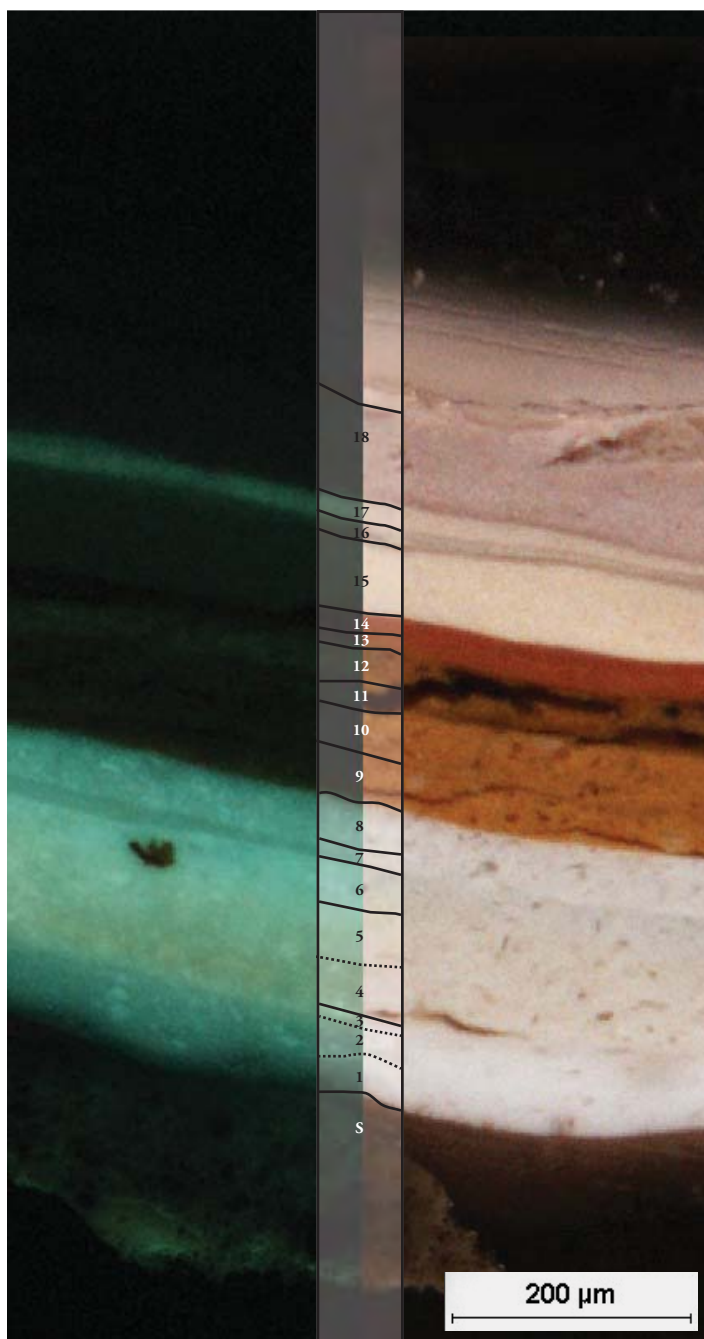
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :E: 1	Element: porch handrail	Date Sampled: 02/13/11
Sample Location: underside, interior side		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

15	18	pink
14	17	*cream
13	16	pink tan
12	15	cream
11	14	orange red
10	13	red orange
9	12	dark brown orange
8	11	dark brown orange
7	10	/brown orange
6	9	brown orange
5	8	/off white
4	7	off white
3	6	*off white
2	5	cream
	4	cream
1	3	/ light cream
	2	off white
	1	off white
		substrate

/ : Fracture * : Dirt

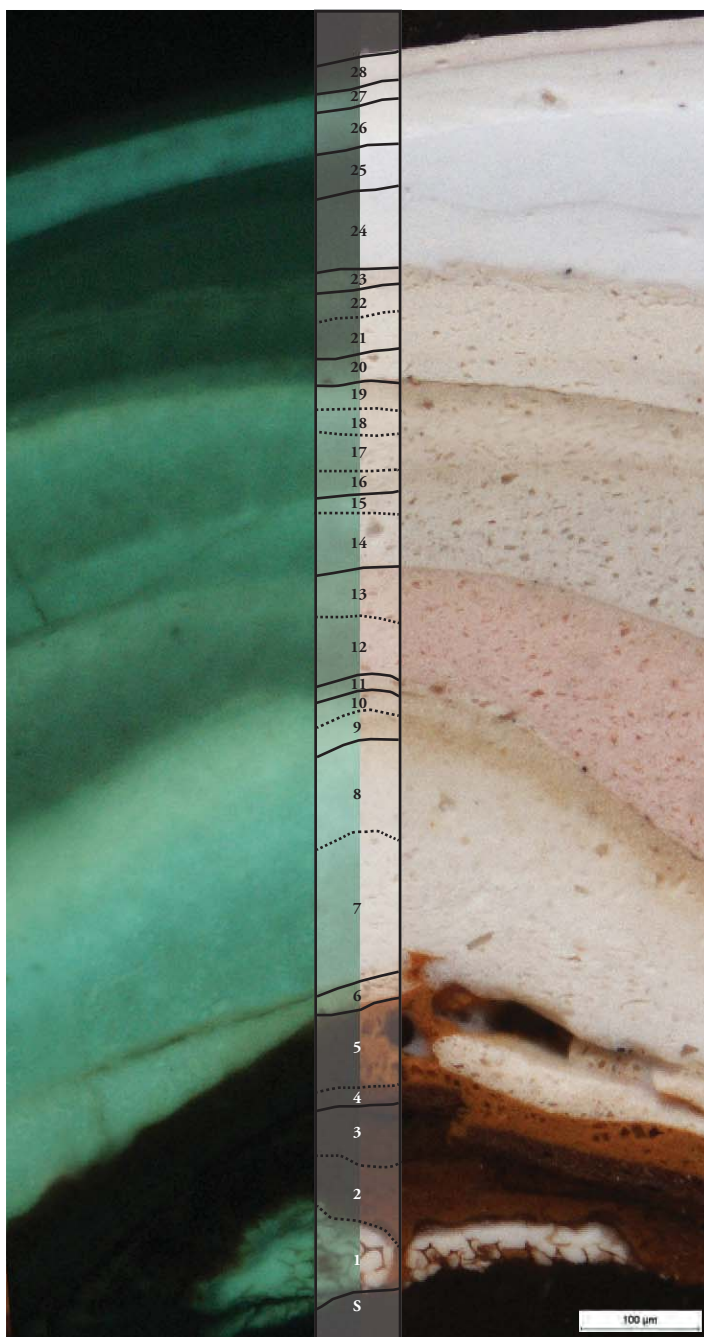
Conclusions

Color: F1: light cream
Munsell Color F1: 10Y 9/2
Probable Pigments:
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :F: 4	Element: door	Date Sampled: 02/13/11
Sample Location: main panel, center frame		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

14	25	white
13	24	*white
12	23	*tan
11	22	cream
10	21	cream
9	20	off white
8	19	/*dark tan
	18	light tan
	17	tan
	16	*tan
7	15	light tan
	14	light tan
6	13	*pink
	12	pink
5	11	/*off white
4	10	cream
	9	tan
3	8	off white
	7	white
2	6	off white
2	5	brown orange
	4	brown
1	3	dark brown
	2	orange brown
	1	white
		substrate

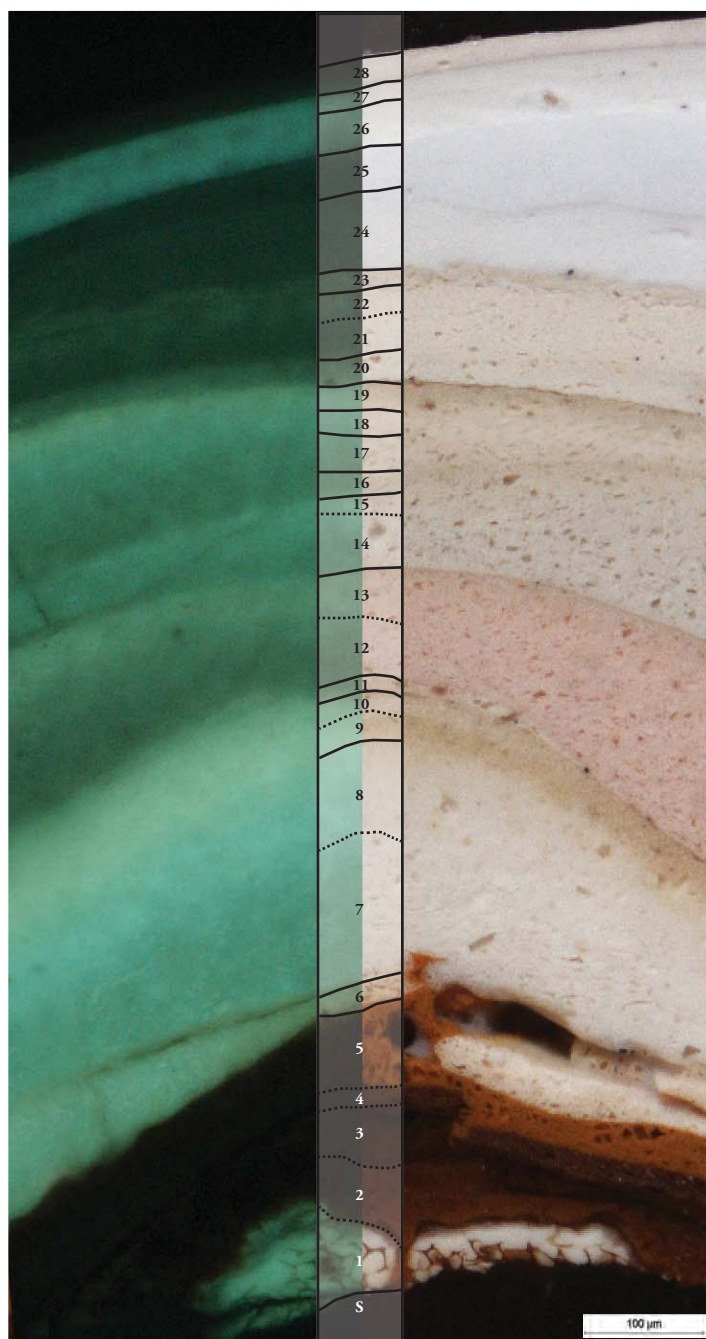
/: Fracture *: Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :F: 4	Element: door	Date Sampled: 02/13/11
Sample Location: main panel, center frame		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

17	28
16	27
15	26

cream

*off white

off white

/ : Fracture * : Dirt

Conclusions

Color: F1: graining

Munsell Color F1:

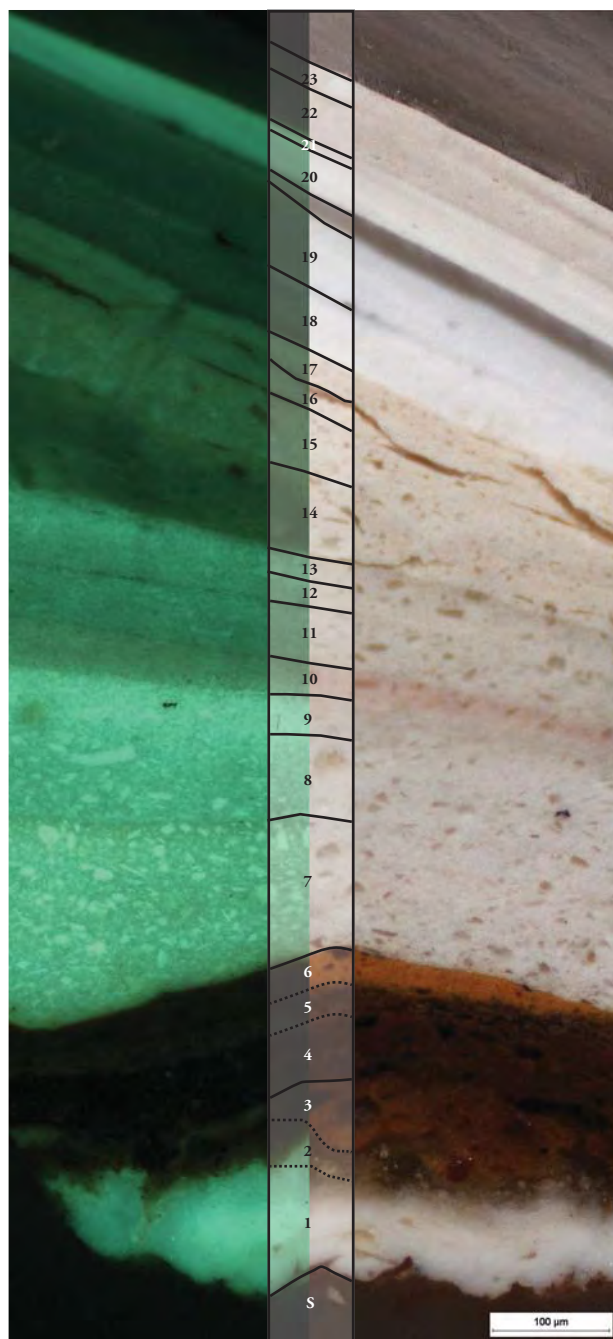
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :F: 3	Element: door	Date Sampled: 02/13/11
Sample Location: panel		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

21	23	cream
20	22	cream
19	21	off white
18	20	off white
17	19	white
16	18	white
15	17	cream
14	16	cream
13	15	/cream
12	14	light tan
11	13	/tan
10	12	off white
9	11	off white
8	10	pink
7	9	light tan
6	8	off white
5	7	off white
4	6	*brown orange
3	5	dark brown
2	4	red brown
1	3	orange brown
	2	/translucent gold
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: graining

Munsell Color F1:

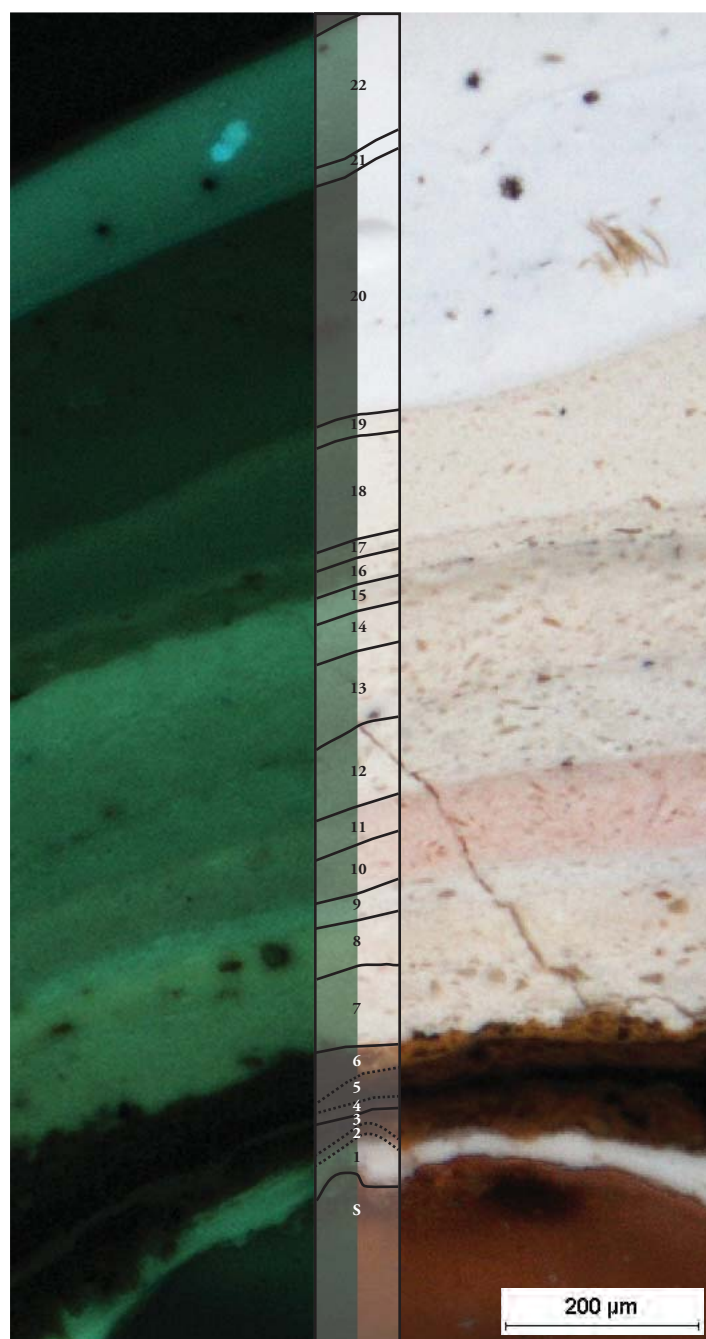
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 48 :F: 8	Element: door	Date Sampled: 02/13/11
Sample Location: shutter		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
20	22	off white
19	21	off white
18	20	*white
17	19	/*light tan
16	18	cream
15	17	cream
14	16	*light tan
13	15	*tan
12	14	cream
11	13	cream
10	12	*off white
9	11	*pink
8	10	pink
7	9	off white
6	8	cream
5	7	cream
4	6	*brown orange
3	5	red brown
2	4	dark brown
1	3	red brown
	2	translucent gold
	1	white
		substrate

/ : Fracture * : Dirt

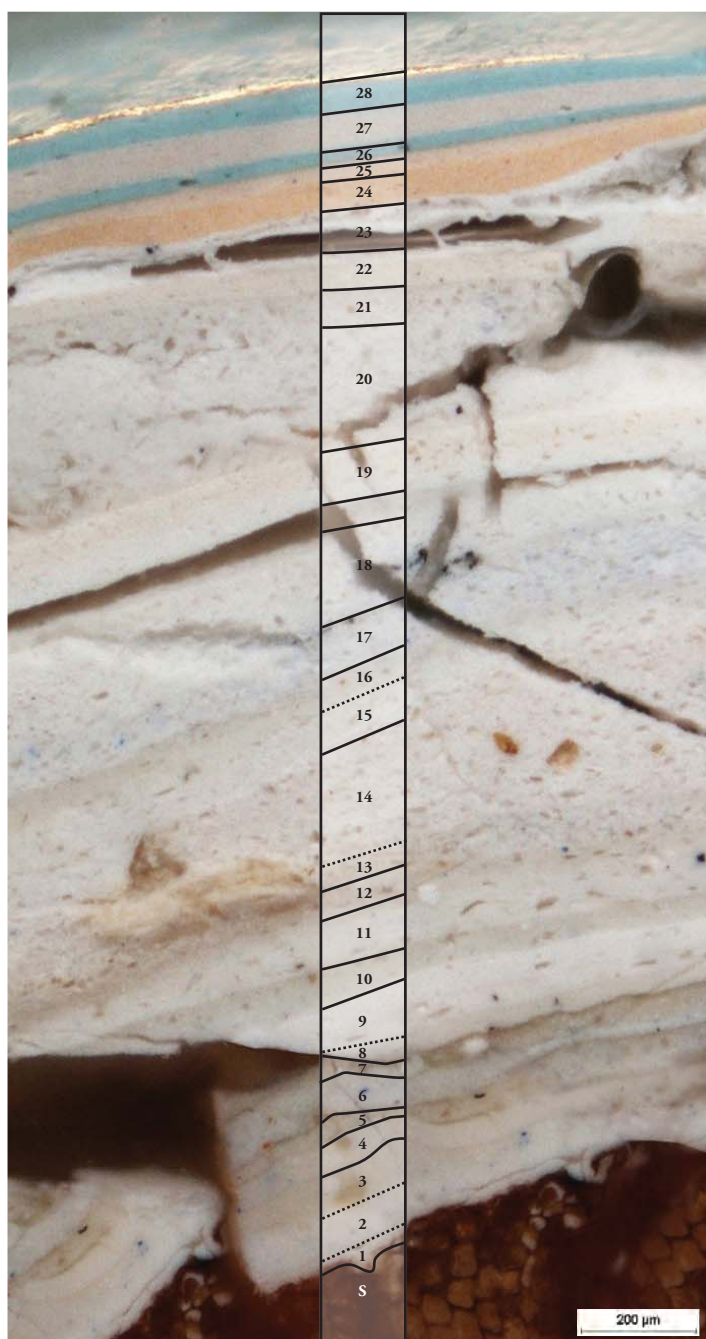
Conclusions

Color: F1: graining
Munsell Color F1:
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 3	Element: door frame	Date Sampled: 02/13/11
Sample Location: horizontal divider, central Door		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
20	25	light yellow
19	24	orange yellow
18	23	/*white
17	22	cream
16	21	light tan
15	20	off white
14	19	cream
13	18	/light cream
12	17	off white
11	16	light tan
	15	light cream
10	14	off white
	13	light tan
9	12	tan
8	11	light tan
7	10	off white
	9	off white
6	8	off white
	7	*tan
4	6	*white
3	5	off white
2	4	*off white
1	3	*white
	2	white
	1	white
		substrate

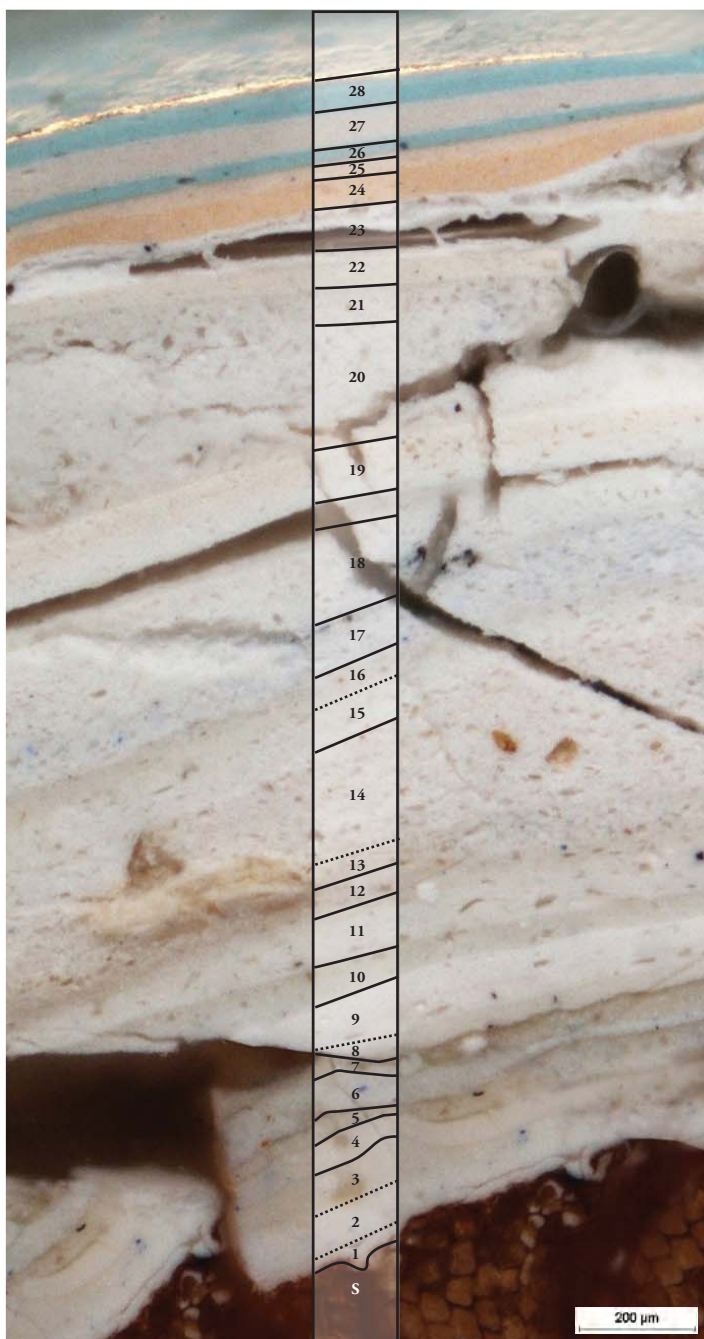
/: Fracture *: Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 3	Element: door frame	Date Sampled: 02/13/11
Sample Location: horizontal divider, central Door		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

25	28
24	27
23	26

green blue

cream

green blue

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 10Y 9/2- 10Y 9/1

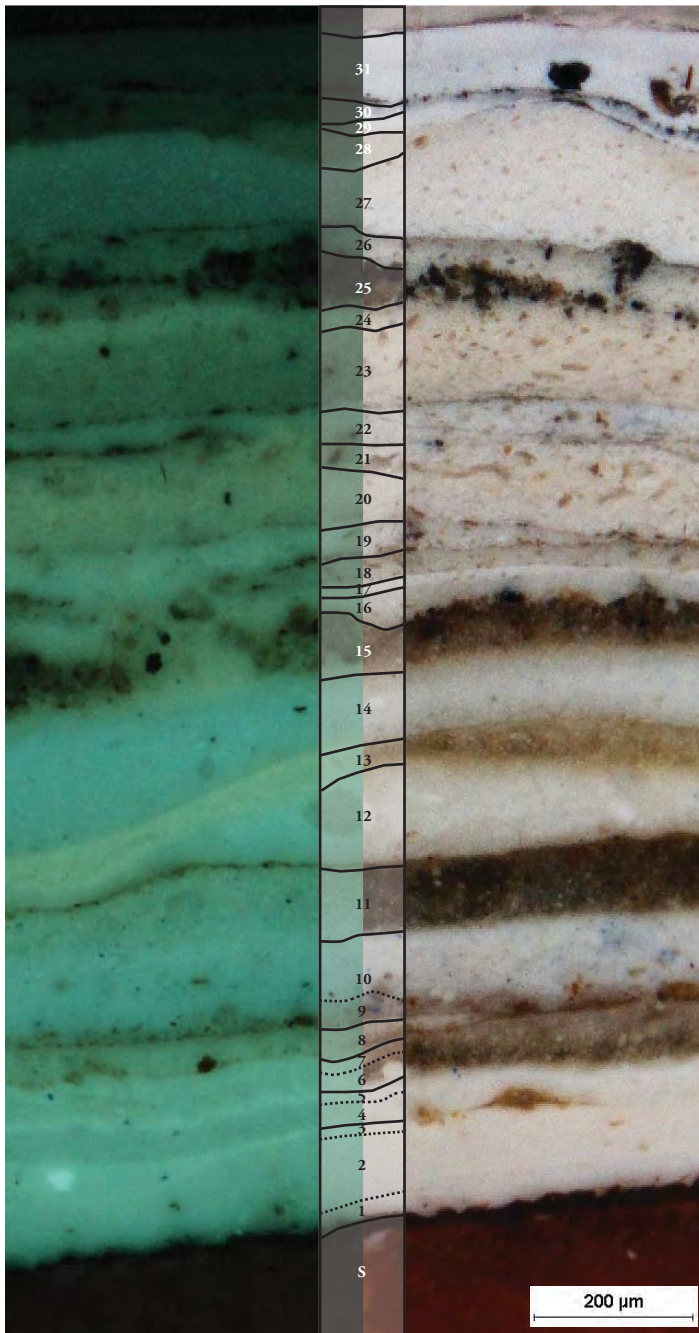
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 4	Element: door frame	Date Sampled: 02/13/11
Sample Location: panel above main door		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

20	25	off white
19	24	*cream
18	23	cream
17	22	*white
16	21	*white
15	20	cream
14	19	*off white
13	18	*off white
12	17	white
11	16	white
10	15	brown tan
9	14	white
8	13	*brown cream
7	12	cream
6	11	*brown tan
5	10	white
4	9	medium tan
	8	*tan
	7	/medium tan
3	6	dark tan
	5	white
2	4	white
	3	off white
1	2	off white
	1	white
		substrate

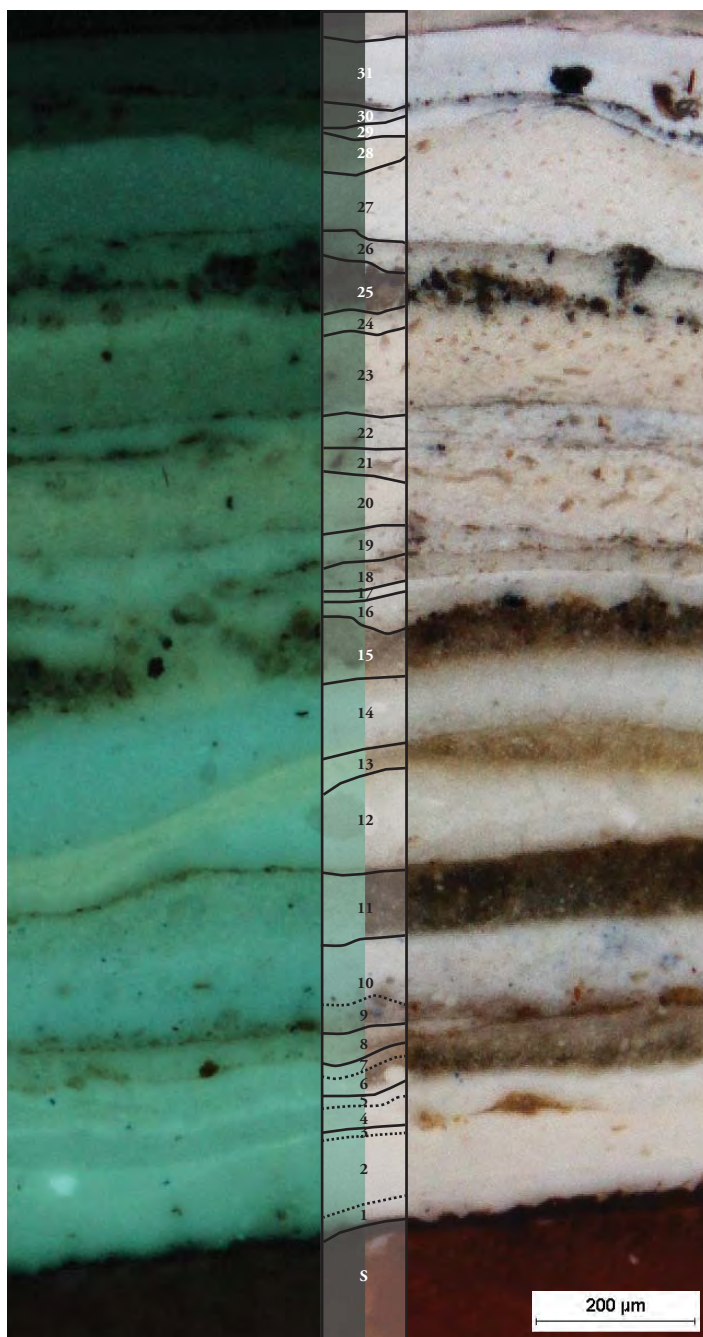
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 4	Element: door frame	Date Sampled: 02/13/11
Sample Location: panel above main door		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

28	31
27	30
26	29
25	28
24	27
23	26

white

*white

*white

*cream

off white

*grey tan

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 10Y 9/2- 10Y 9/1

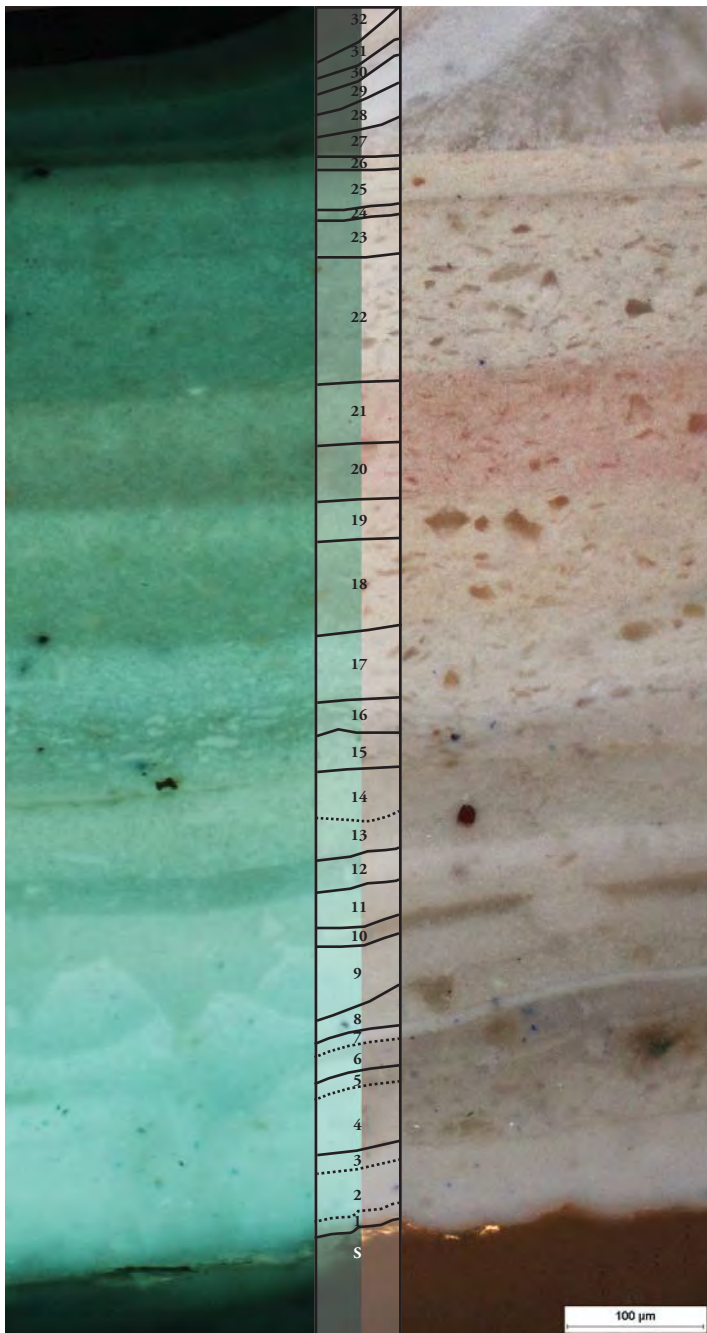
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 10	Element: door frame	Date Sampled: 02/13/11
Sample Location: main door, transom		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

20	25	tan
19	24	*grey tan
18	23	tan
17	22	tan
16	21	pink
15	20	pink
14	19	cream
13	18	cream
12	17	off white
11	16	white
10	15	off white
9	14	*off white
	13	off white
8	12	white
7	11	off white
6	10	off white
5	9	off white
4	8	off white
3	7	white
	6	off white
2	5	*white
	4	off white
	3	/white
1	2	off white
	1	white
		substrate

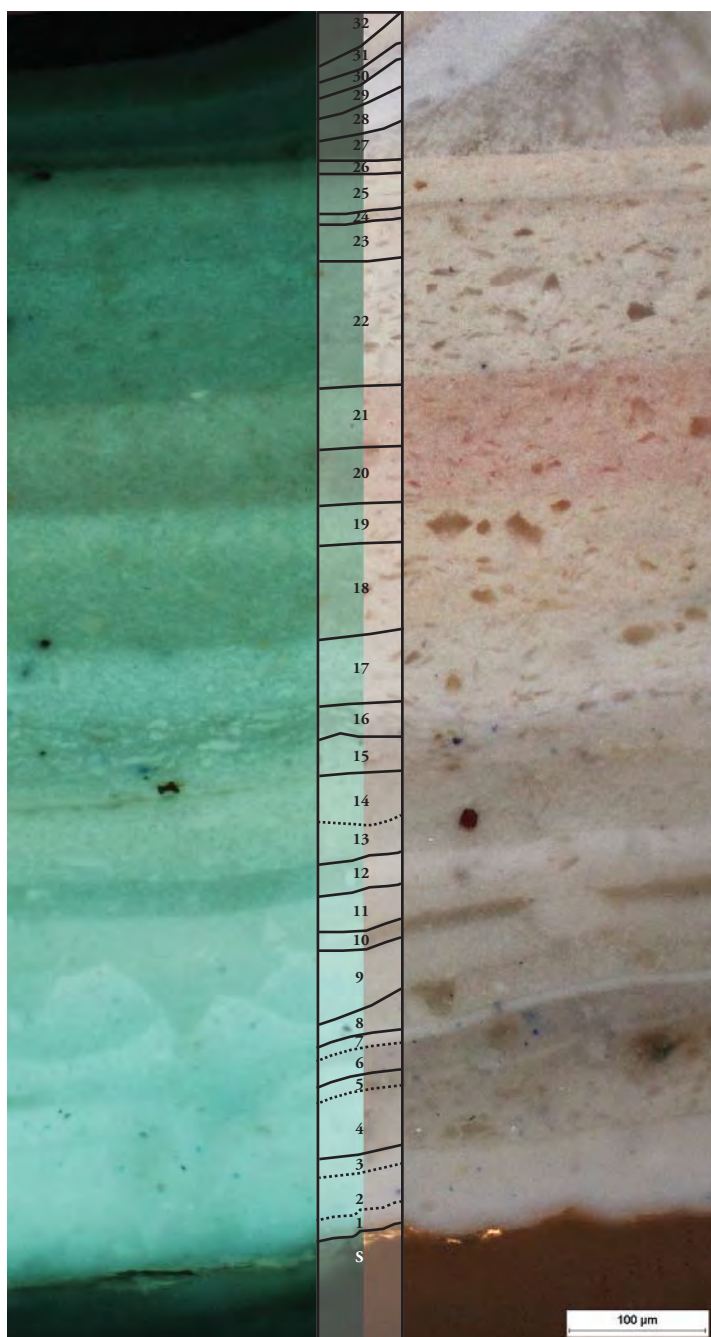
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 10	Element: door frame	Date Sampled: 02/13/11
Sample Location: main door, transom		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

27	32
26	31
25	30
24	29
23	28
22	27
21	26

/ : Fracture * : Dirt

Conclusions

Color: F1: white

Munsell Color F1: 5Y 9/1-10Y 9/1

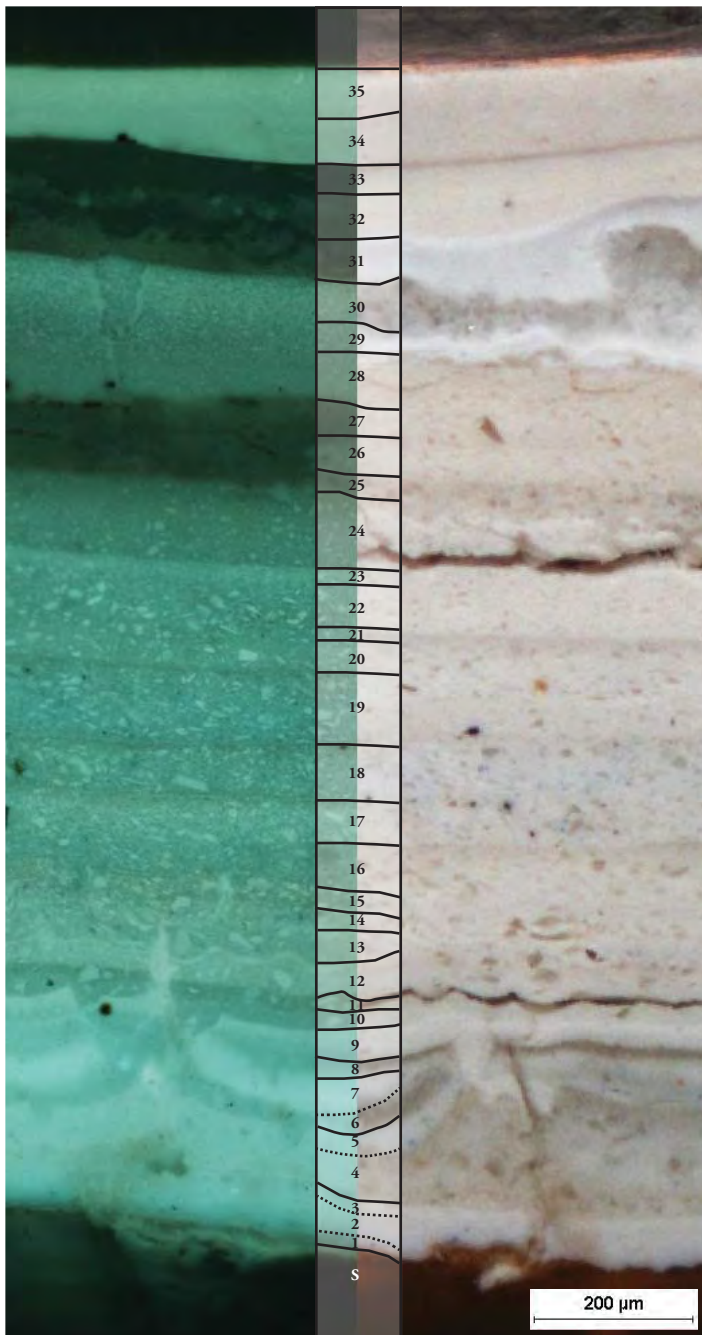
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 11	Element: door frame	Date Sampled: 02/13/11
Sample Location: pediment trim below top		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

21	25	light tan
20	24	off white
19	23	/off white
18	22	off white
17	21	*light tan
16	20	off white
15	19	off white
14	18	*white
13	17	off white
12	16	*off white
11	15	off white
10	14	off white
9	13	off white
8	12	light tan
7	11	/light tan
6	10	off white
5	9	off white
4	8	tan
3	7	white
	6	off white
2	5	white
	4	off white
1	3	white
	2	white
	1	white
		substrate

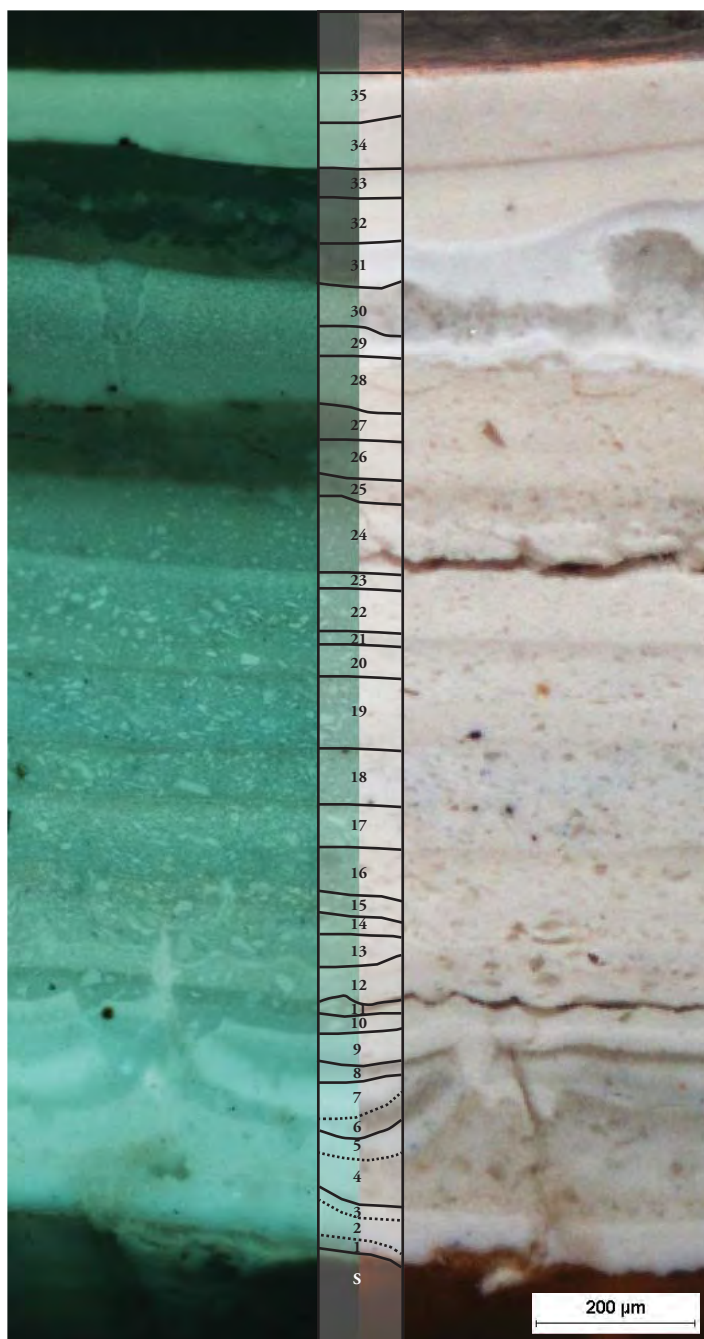
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 11	Element: door frame	Date Sampled: 02/13/11
Sample Location: pediment trim below top		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

31	35
30	34
29	33
28	32
27	31
26	30
25	29
24	28
23	27
22	26

cream
cream
*yellow cream
yellow cream
white
off white
white
/cream
cream
cream
/: Fracture *: Dirt

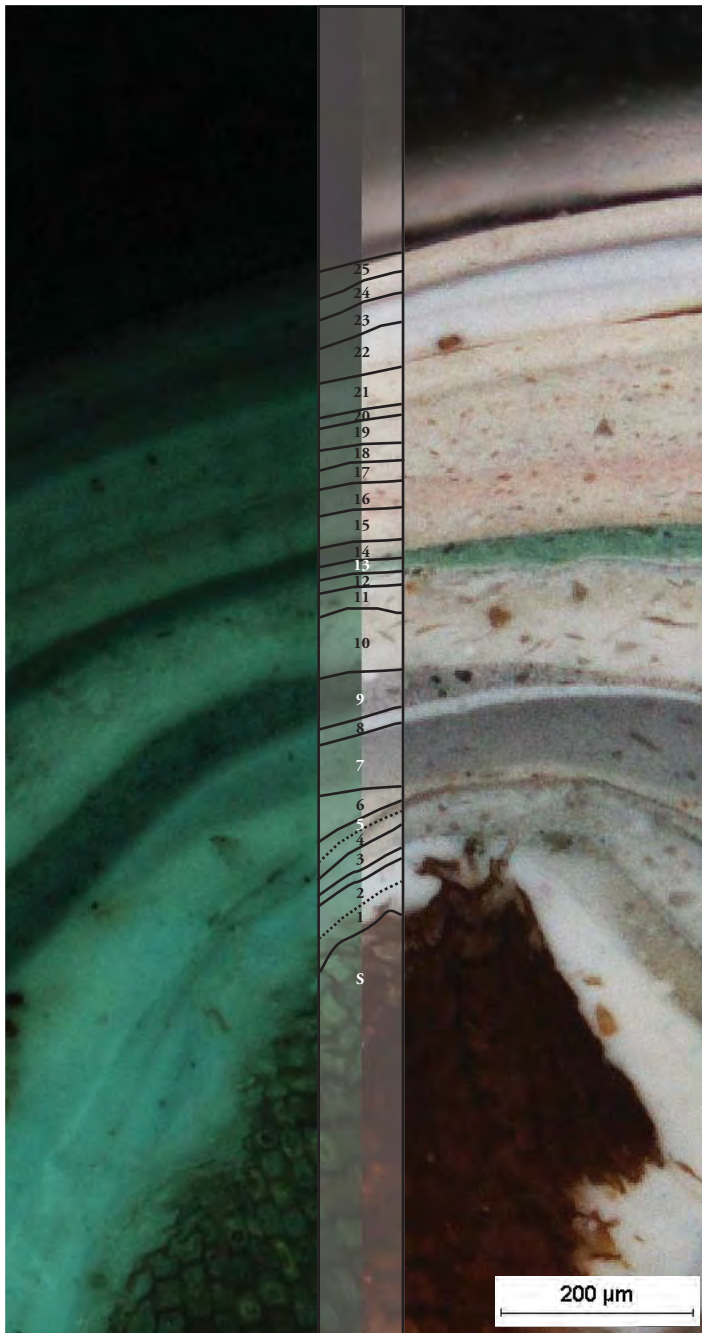
Conclusions

Color: F1: off white
Munsell Color F1: 5Y 9/1 - 10Y 9/2
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
4 E. Cecelio Dominguez Street

Sample Number: 4 :G: 12	Element: door frame	Date Sampled: 02/13/11
Sample Location: sidelight inner panel		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

/ : Fracture * : Dirt

Scheme/Layer

Color

23	26	cream
22	25	cream
21	24	*white
20	23	*off white
19	22	/cream
18	21	tan
17	20	cream
16	19	light tan
15	18	tan
14	17	pink
13	16	cream
12	15	pink tan
11	14	*green
10	13	blue white
9	12	tan
8	11	off white
7	10	grey
6	9	*light white grey
5	8	grey
4	7	*tan grey
3	6	grey
1	5	*grey
	4	*tan grey
	3	white
	2	white
	1	off white
		substrate

Conclusions

Color: F1: off white

Munsell Color F1: 5Y 9/1 - 10Y 9/2

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding, west side of main door		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

21	25	yellow cream
20	24	yellow cream
19	23	white
18	22	cream
17	21	/cream
16	20	/cream
15	19	green
14	18	blue green
13	17	light blue green
12	16	blue green
11	15	blue green
10	14	pale grey green
9	13	*off white
8	12	off white
7	11	off white
6	10	off white
5	9	cream
	8	cream
4	7	cream
3	6	grey tan
	5	light green
2	4	light green
	3	/light green
1	2	white
	1	white
		substrate

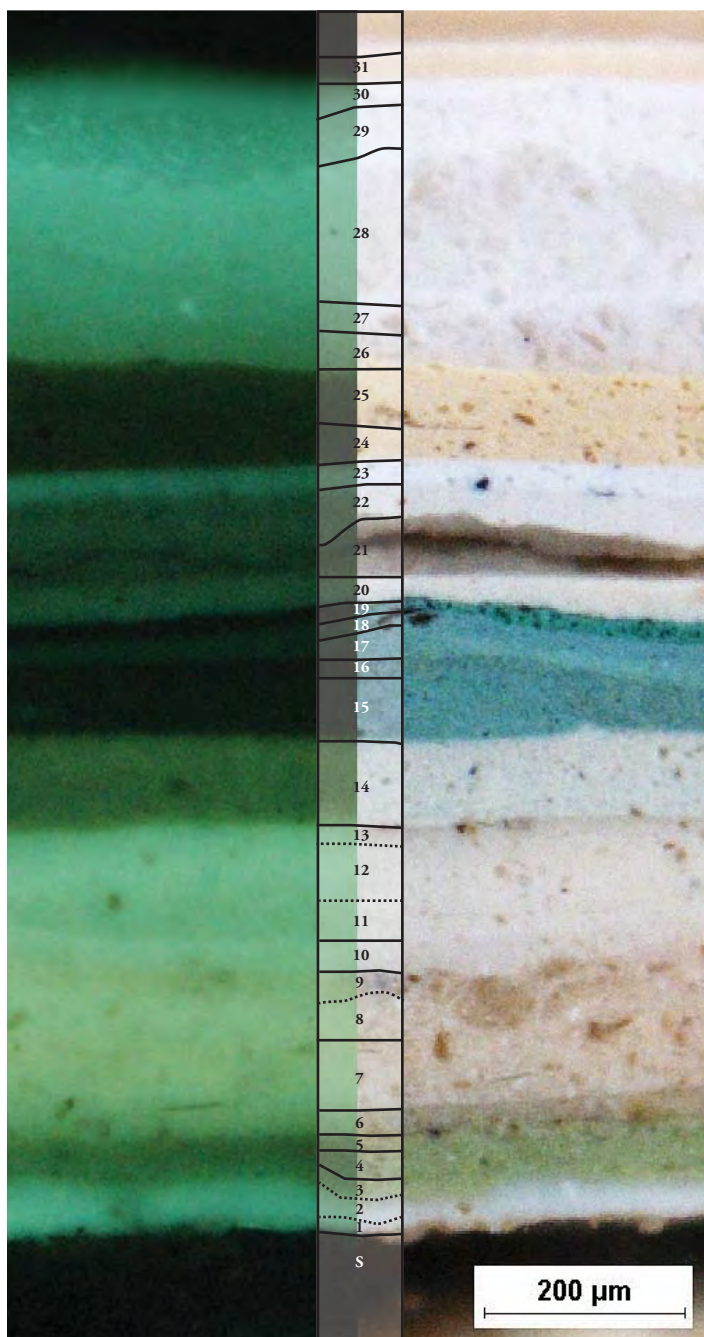
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding, west side of main door		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

28	31
27	30
26	29
25	28
24	27
23	26

yellow

white

white

white

white

white

/ : Fracture * : Dirt

Conclusions

Color: F1: light green

Munsell Color F1: 2.5GY 7/6

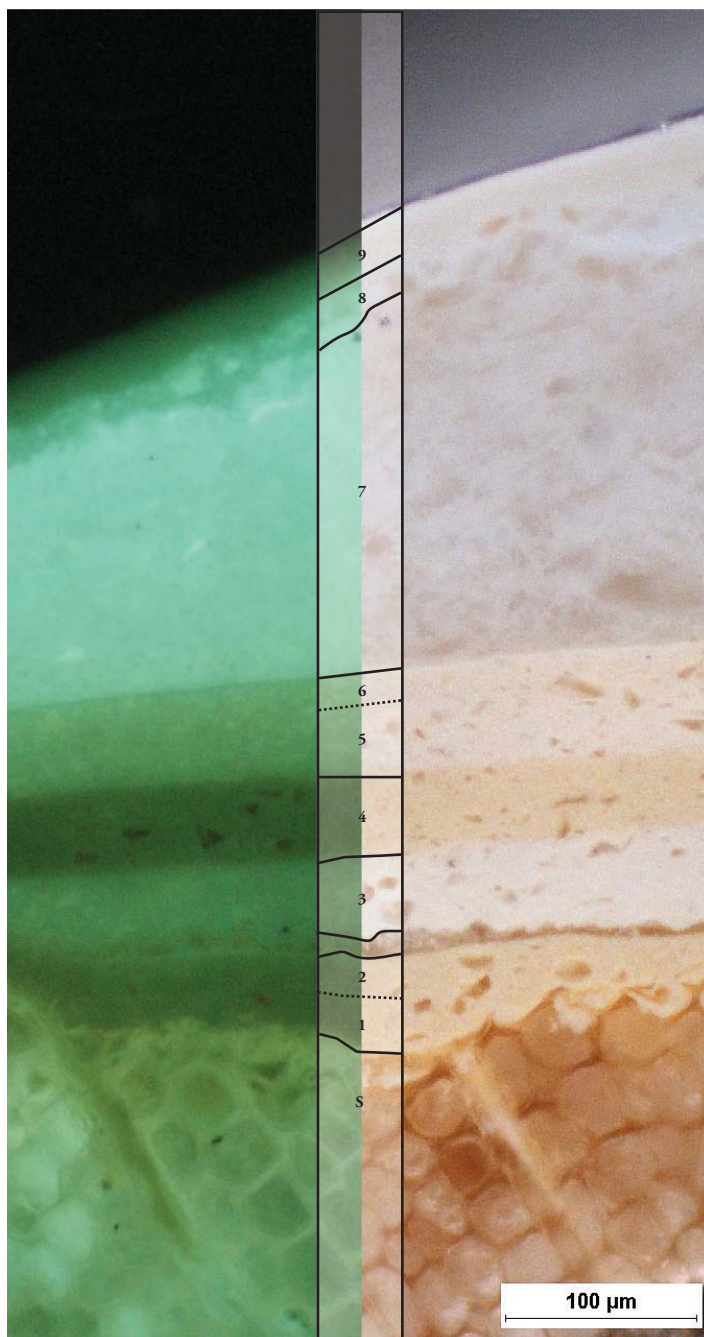
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :A: 2	Element: wall	Date Sampled: 02/13/11
Sample Location: trim board at wall		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

7	9	off white
6	8	white
5	7	off white
4	6	cream
	5	cream
3	4	yellow cream
2	3	cream
1	2	/yellow cream
	1	yellow cream
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: yellow cream

Munsell Color: F1: 2.5Y 8.5/6 -2.5Y 8.5/4

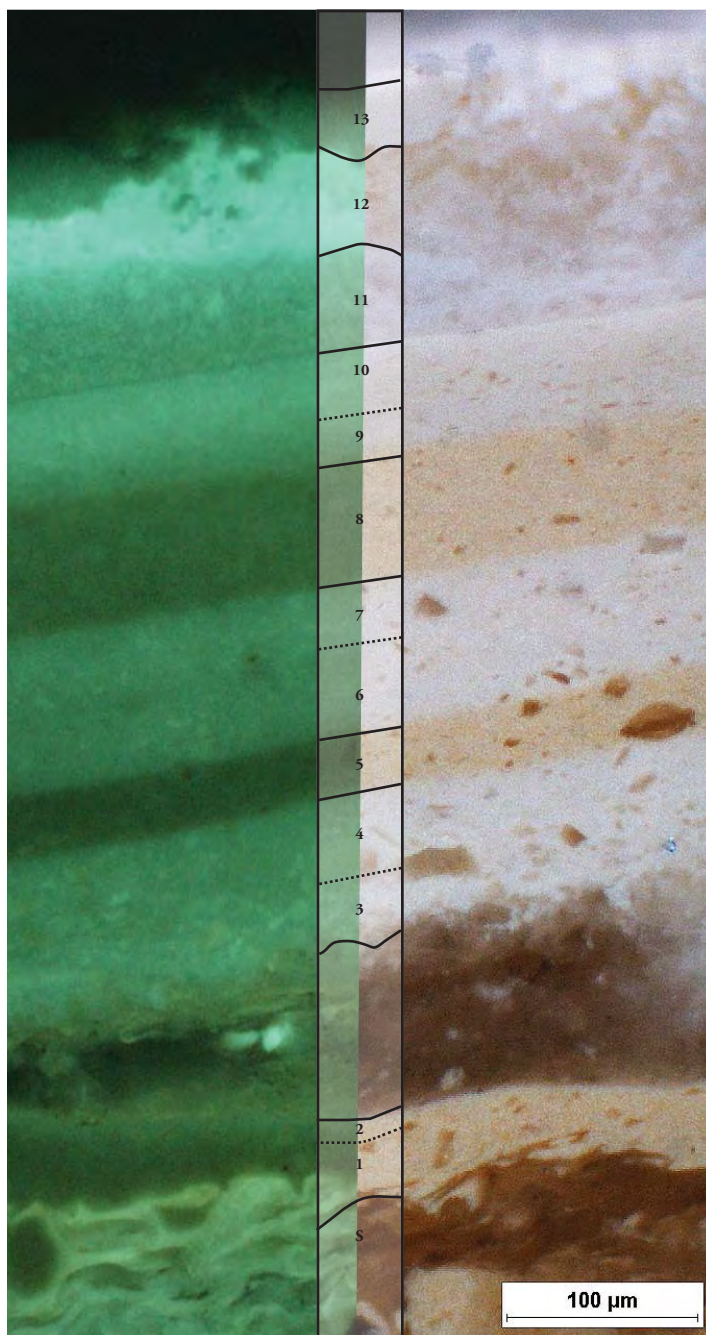
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :A: 3	Element: wall	Date Sampled: 02/13/11
Sample Location: baseboard		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

9	13	off white
8	12	off white
7	11	white
6	10	cream
	9	cream
5	8	yellow cream
4	7	cream
	6	cream
3	5	yellow cream
2	4	cream
	3	cream
1	2	/*yellow cream
	1	yellow cream
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: yellow cream

Munsell Color F1: 2.5Y 8.5/6 -2.5Y 8.5/4

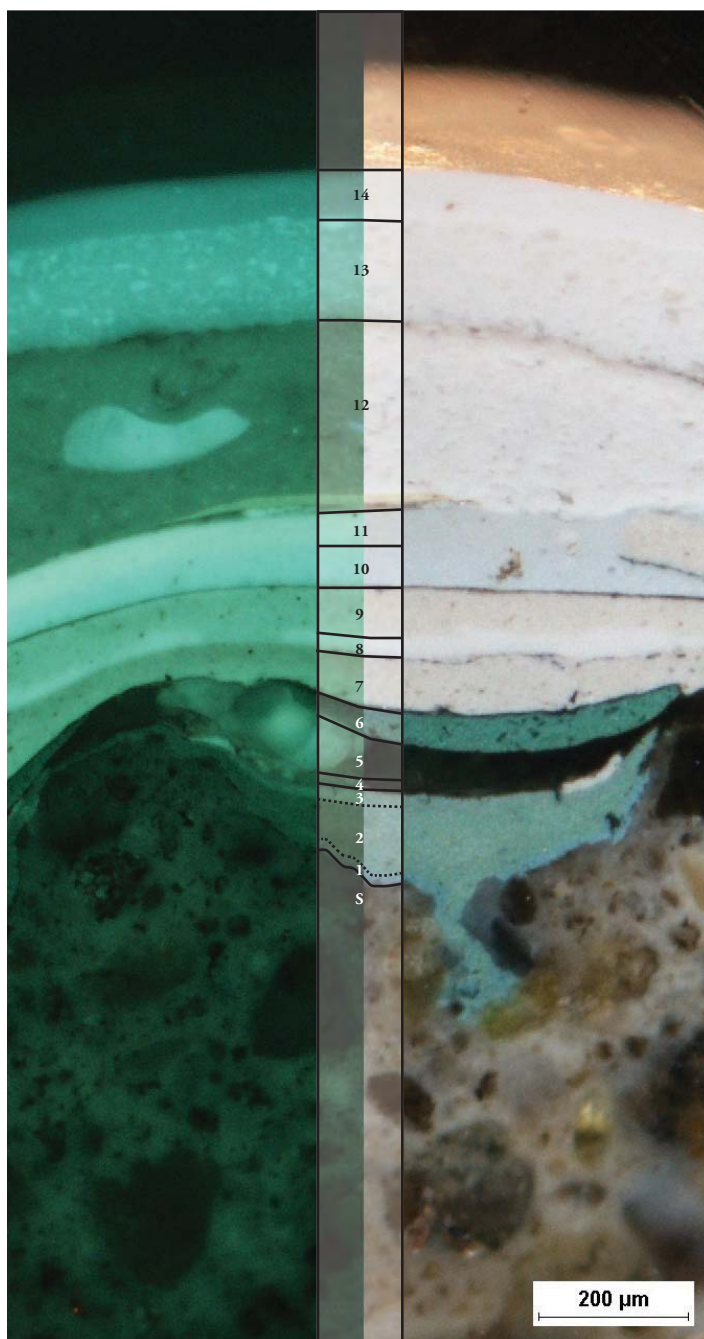
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding, west side of main door		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

12	14	off white
11	13	off white
10	12	off white
9	11	*light blue
8	10	light blue
7	9	/*cream
6	8	white
5	7	*cream
4	6	/*dark green
3	5	/green
2	4	/off white
1	3	/green
	2	green
	1	blue green
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: green

Munsell Color F1: 5G 7/8 - 5G 7/6

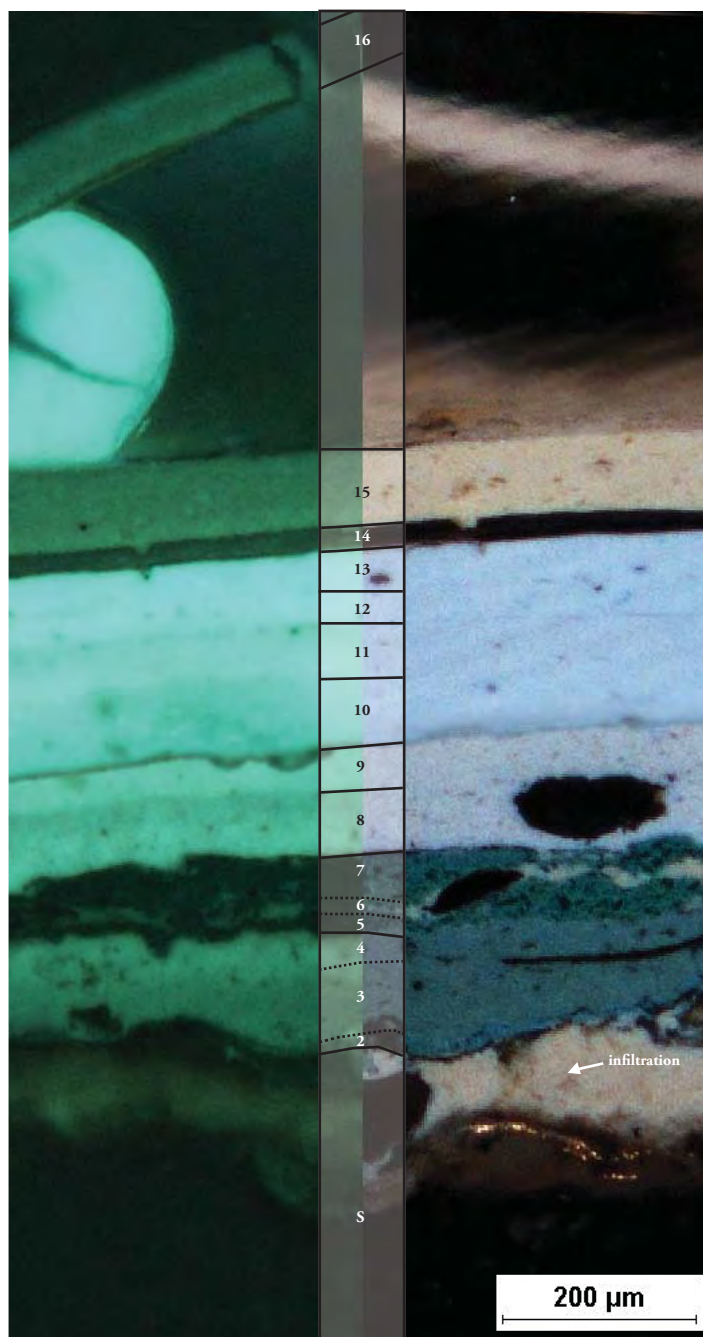
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :B: 2	Element: building base	Date Sampled: 02/13/11
Sample Location: right hand corner of frosting		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
10	14	yellow
9	13	*yellow
8	12	dark brown
7	11	*light blue
6	10	light blue
5	9	*light blue
4	8	light blue
3	7	/light grey white
2	6	light grey white
	5	/*dark green
	4	yellow tan
1	3	green
	2	green
	1	blue green
		substrate

/ : Fracture * : Dirt

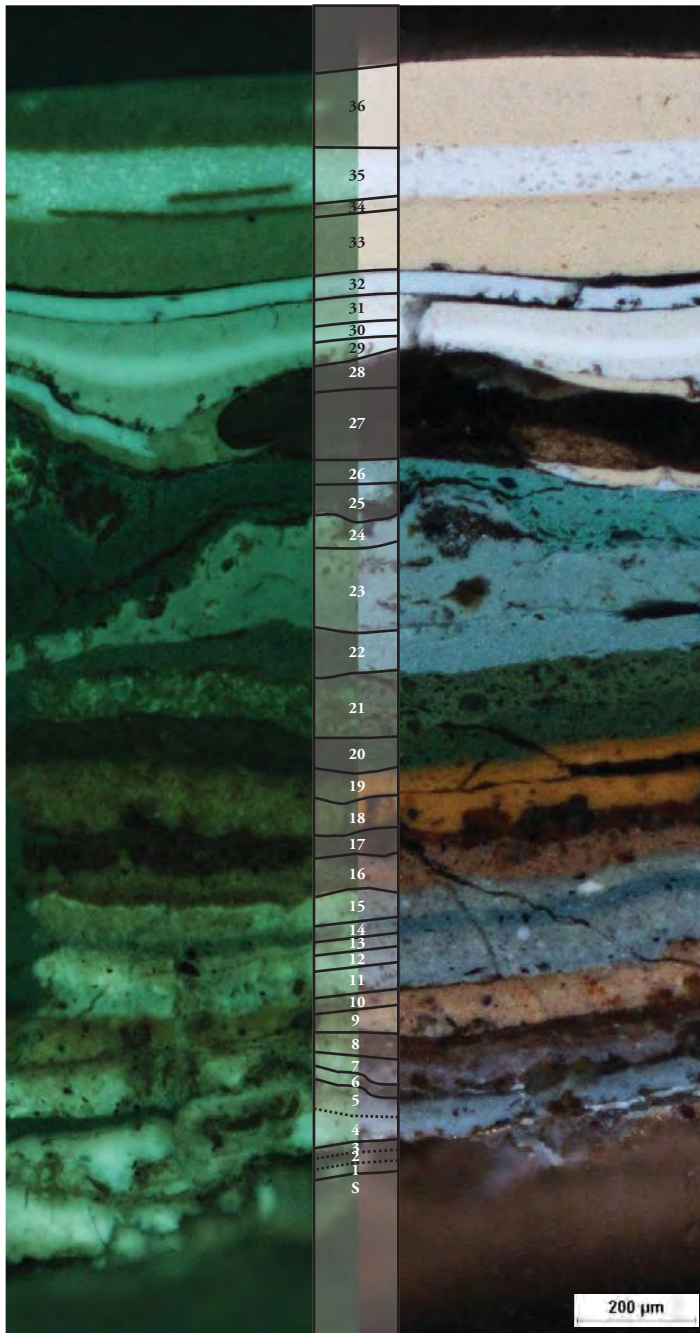
Conclusions

Color: F1: green
Munsell Color F1: 5G 7/8 - 5G 7/6
Probable Medium: oil
Comments: not for color matching,
yellow infiltration near the substrate

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :B: 4	Element: building base	Date Sampled: 02/13/11
Sample Location: middle panel		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

21	25	/bright green
20	24	bright green
19	23	blue green
18	22	/blue green
17	21	green
16	20	dark green
15	19	brown yellow
14	18	/brown yellow
13	17	red brown
12	16	*dark pink tan
11	15	green grey
10	14	grey blue
9	13	green grey
8	12	green grey
7	11	blue grey
6	10	/*dark pink tan
	9	pink tan
5	8	*brown
4	7	grey purple
3	6	brown
2	5	*light green grey
	4	light green blue
	3	*blue grey
1	2	light grey
	1	light grey
		substrate

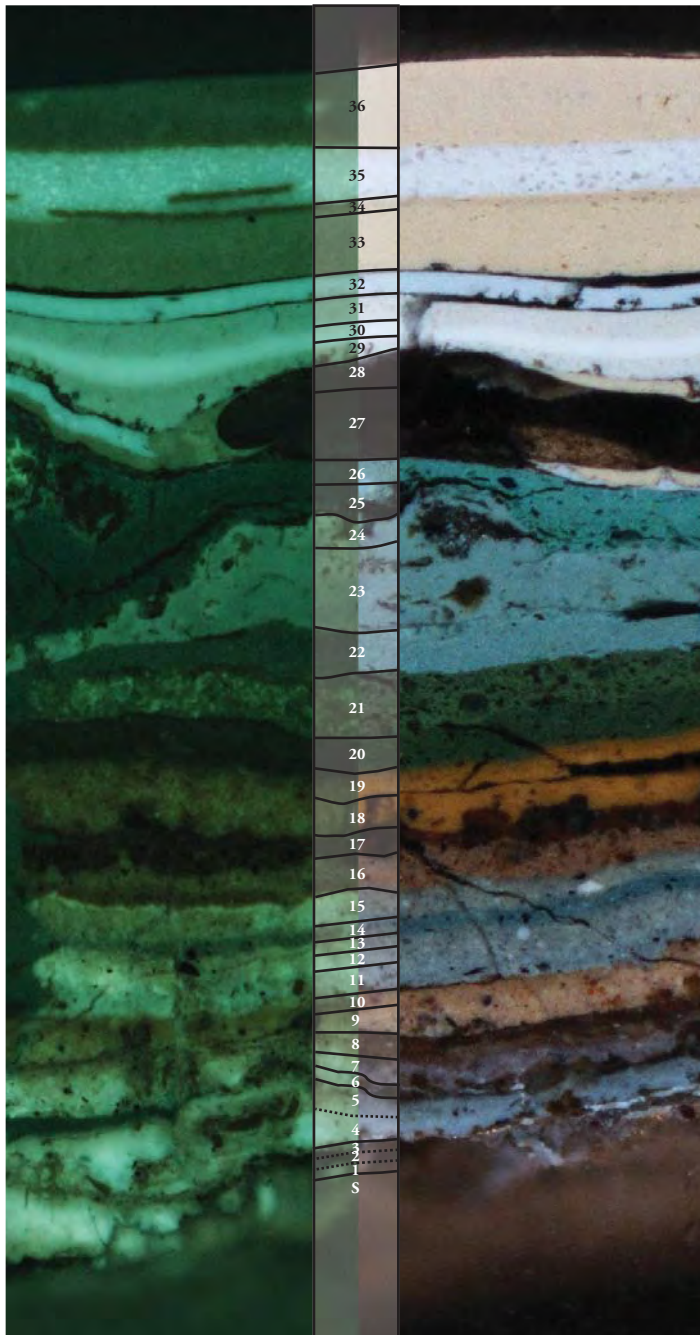
/: Fracture *: Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :B: 4	Element: building base	Date Sampled: 02/13/11
Sample Location: middle panel		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

32	36	light yellow
31	35	white
30	34	yellow tan
29	33	light yellow
28	32	/light blue
27	31	/light tan
26	30	white
25	29	light tan
24	28	*white
23	27	light yellow
22	26	*bright green

/ : Fracture * : Dirt

Conclusions

Color: F1: blue green

Munsell Color F1: 5PB 7/1

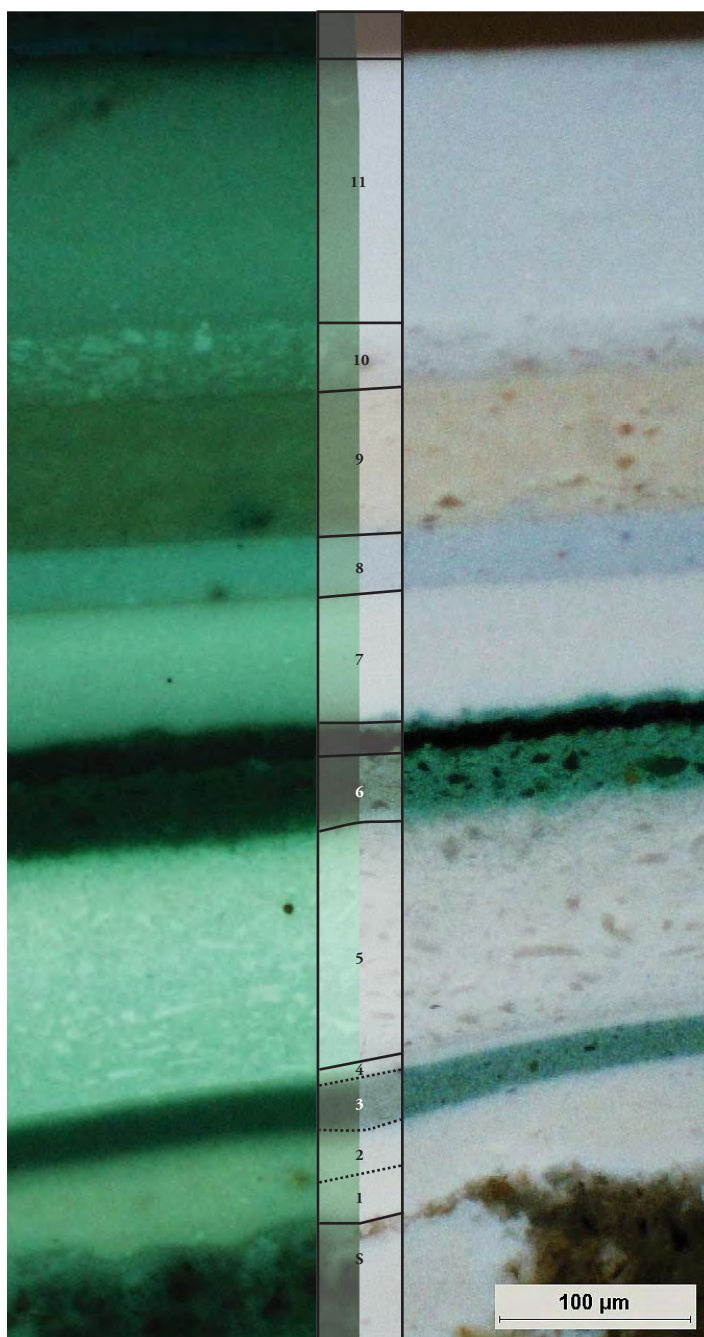
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :C: 2	Element: column	Date Sampled: 02/13/11
Sample Location: middle		Date Analyzed: 04/09/11
Substrate: concrete	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

9	11	white
8	10	white
7	9	yellow cream
6	8	light blue
5	7	off white
4	6	green
3	5	off white
2	4	white
1	3	green
	2	off white
	1	off white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: green

Munsell Color F1: 5G 7/8 - 5G 7/6

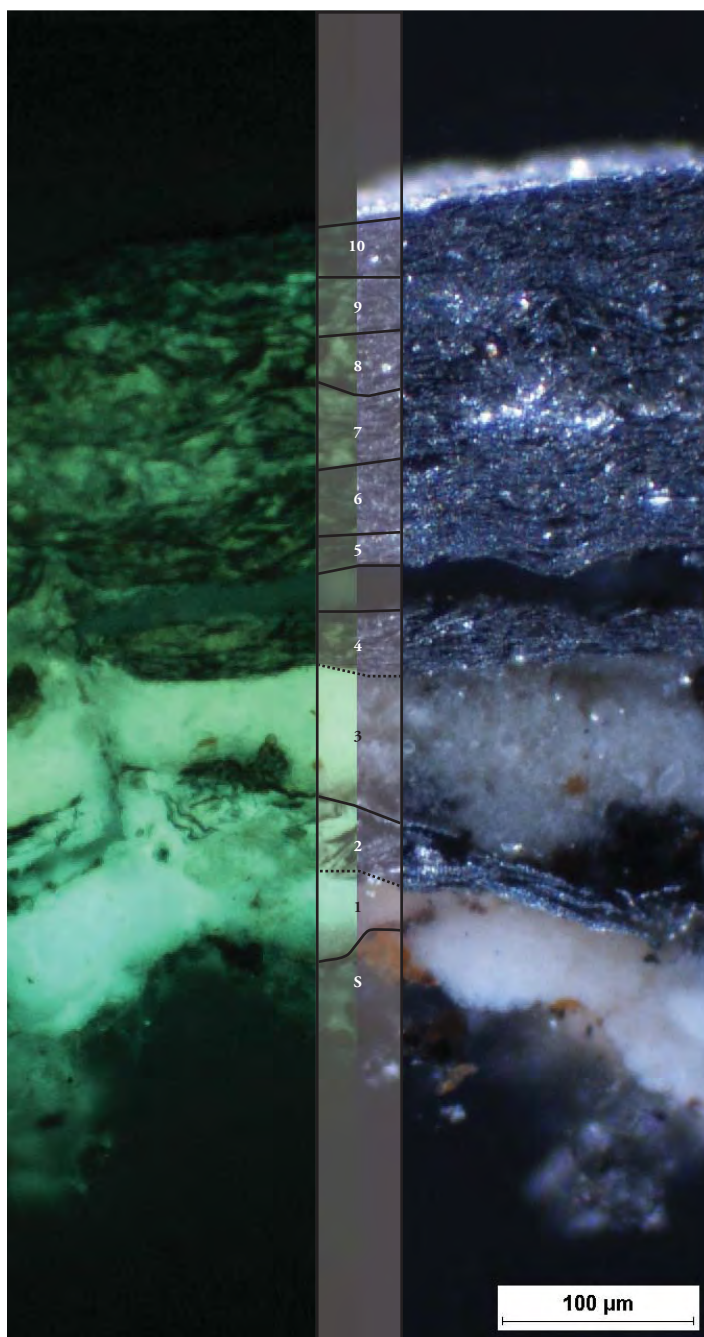
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :D: 1	Element: porch railing	Date Sampled: 02/13/11
Sample Location: middle		Date Analyzed: 04/09/11
Substrate: iron	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

8	10
7	9
6	8
5	7
4	6
3	5
2	4
	3
1	2
	1

silver
silver
silver
silver
silver
silver
silver
white
silver
white
substrate
/: Fracture *: Dirt

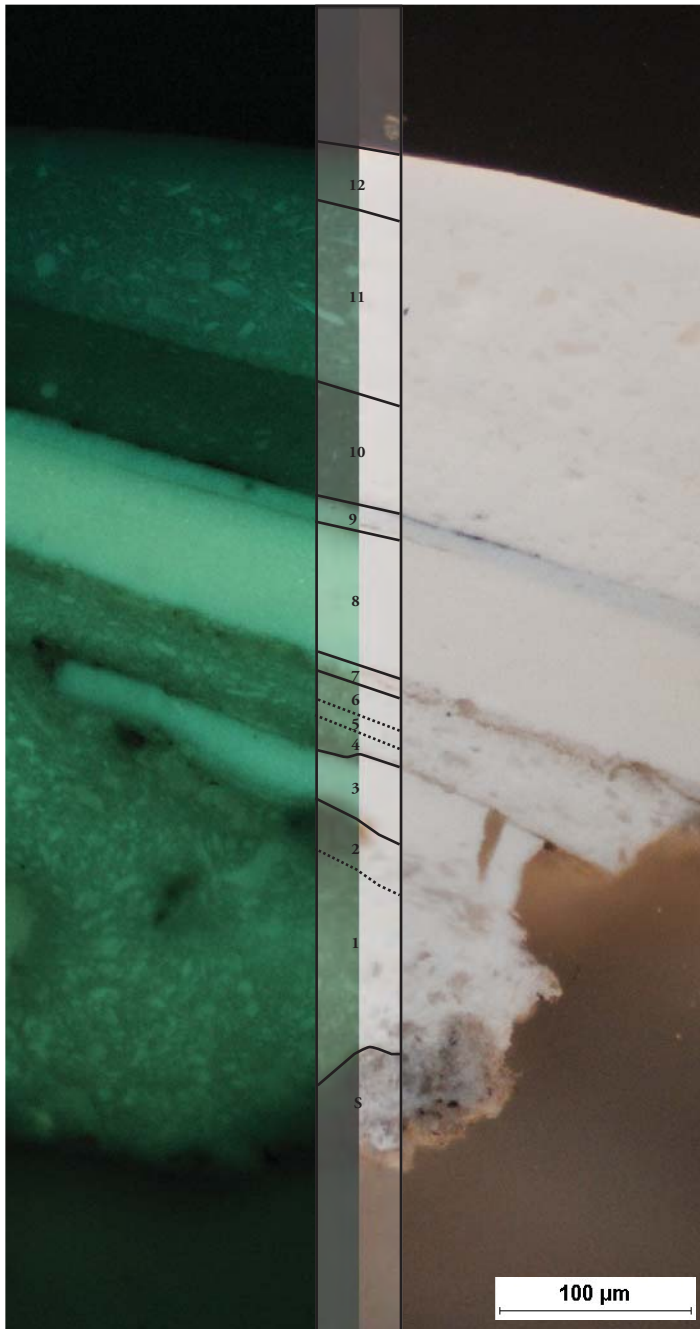
Conclusions

Color: F1: silver
Munsell Color F1:
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :E: 1	Element: porch handrail	Date Sampled: 02/13/11
Sample Location:		Date Analyzed: 04/09/11
Substrate: concrete	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

9	12	white
8	11	white
7	10	white
6	9	*light blue
5	8	white
4	7	tan
3	6	/off white
	5	off white
	4	/off white
2	3	/white
1	2	*off white
	1	off white
		substrate

/ : Fracture * : Dirt

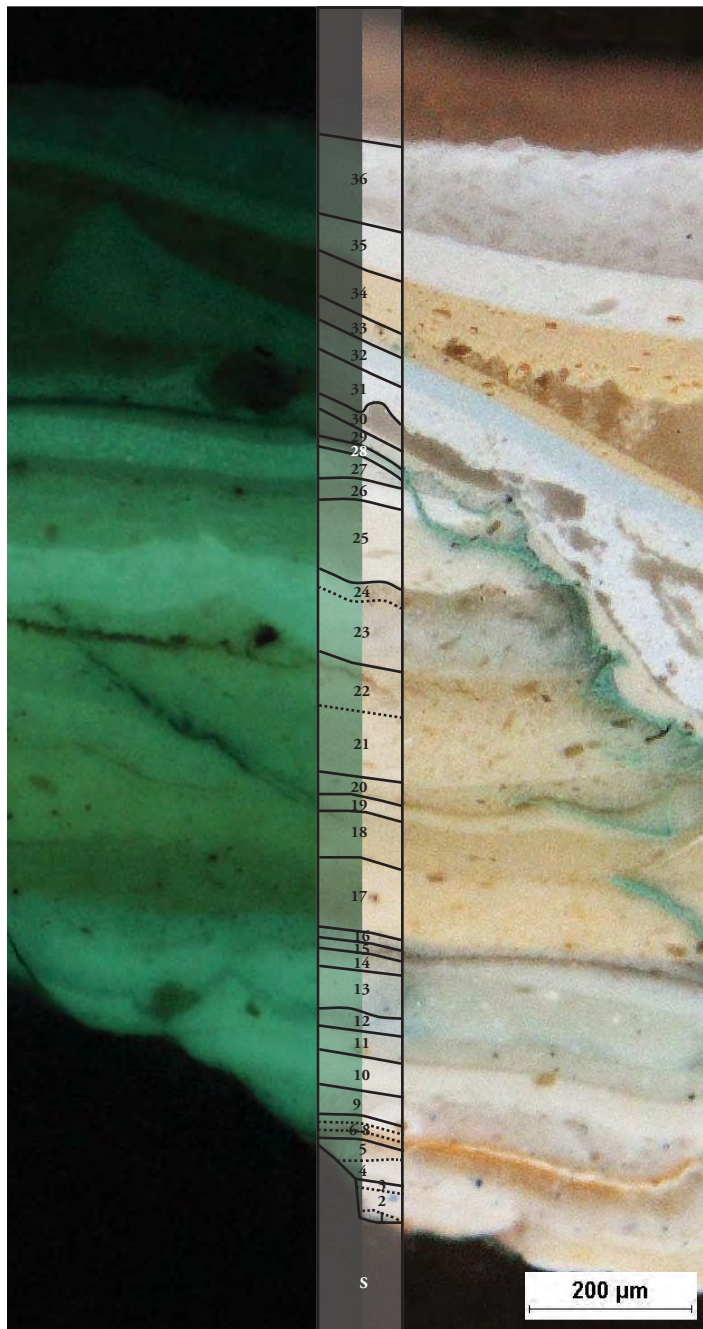
Conclusions

Color: F1: off white
Munsell Color F1: 10Y 9/2
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :G: 1	Element: door frame	Date Sampled: 02/13/11
Sample Location: top detailing		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

20	25	white
19	24	*white
18	23	green white
17	22	yellow tan
16	21	yellow white
15	20	yellow tan
14	19	*yellow white
13	18	yellow tan
12	17	*light yellow
11	16	white
10	15	dark tan
9	14	white
8	13	green white
7	12	blue white
6	11	green white
5	10	*white
4	9	off white
3	8	orange yellow
	7	white
	6	orange yellow
2	5	tan
	4	white
1	3	off white
	2	cream
	1	white
		substrate

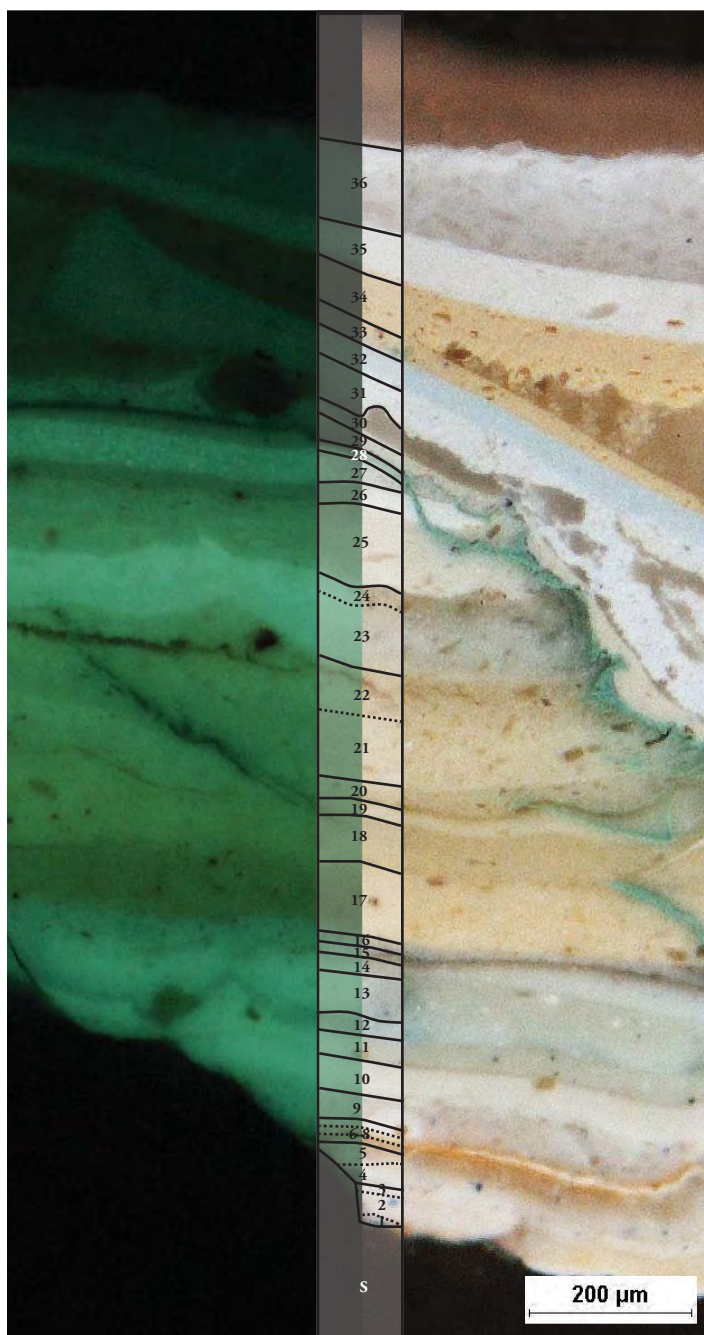
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :G: 1	Element: door frame	Date Sampled: 02/13/11
Sample Location: top detailing		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

31	36	white
30	35	*white
29	34	yellow
28	33	/yellow
27	32	light blue
26	31	grey white
25	30	white
24	29	/light tan
23	28	/green
22	27	white
21	26	/white

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 10Y 9/2

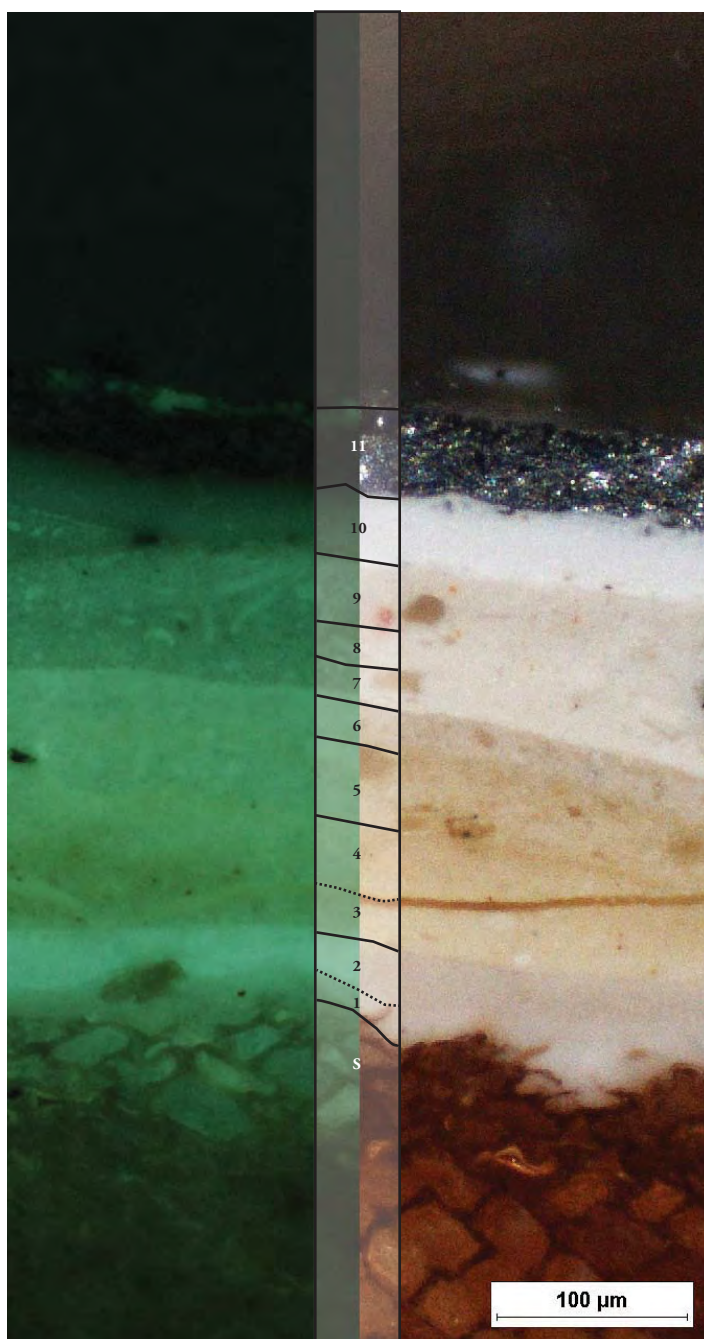
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :G: 2	Element: door frame	Date Sampled: 02/13/11
Sample Location: middle door, transom		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

9	11	silver
8	10	*white
7	9	light tan
6	8	light tan
5	7	off white
4	6	tan
3	5	yellow cream
2	4	yellow cream
	3	/yellow cream
1	2	light tan
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: light tan

Munsell Color F1: 5Y 8.5/2

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :G: 3	Element: door frame	Date Sampled: 02/13/11
Sample Location: pediment, flat detail		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

21	25	tan
	24	off white
20	23	off white
19	22	green
18	21	off white
	20	off white
17	19	yellow cream
16	18	yellow cream
15	17	tan
14	16	off white
13	15	yellow tan
12	14	yellow cream
11	13	yellow tan
10	12	yellow cream
9	11	yellow cream
8	10	dark tan
7	9	dark tan
6	8	white
5	7	*tan
4	6	*off white
3	5	off white
2	4	off white
	3	off white
1	2	off white
	1	white
		substrate

/ : Fracture * : Dirt

Continued onto the next page

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :G: 3	Element: door frame	Date Sampled: 02/13/11
Sample Location: pediment, flat detail		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

30	34	off white
29	33	/off white
28	32	light yellow
27	31	light yellow
26	30	light blue grey
25	29	off white
24	28	off white
23	27	light tan
22	26	off white

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 10Y 9/2

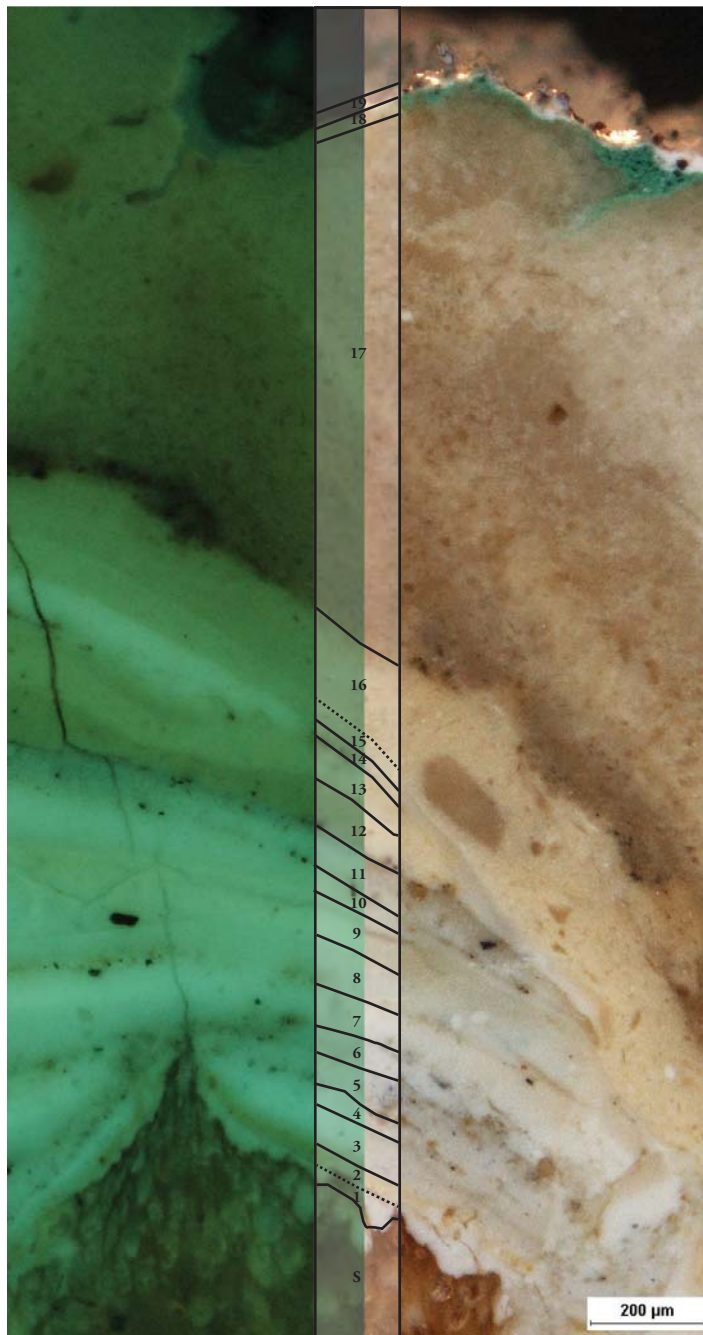
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :G: 5	Element: door frame	Date Sampled: 02/13/11
Sample Location: top of pediment main door		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

16	19	*white
15	18	green
14	17	tan
13	16	*yellow cream
	15	yellow cream
12	14	white
11	13	yellow cream
10	12	yellow cream
9	11	*off white
8	10	*off white
2	9	light tan
	8	white
6	7	*off white
5	6	*white
4	5	*off white
3	4	*off white
2	3	*white
1	2	yellow cream
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: yellow cream

Munsell Color F1: 2.5Y 8.5/6 -2.5Y 8.5/4

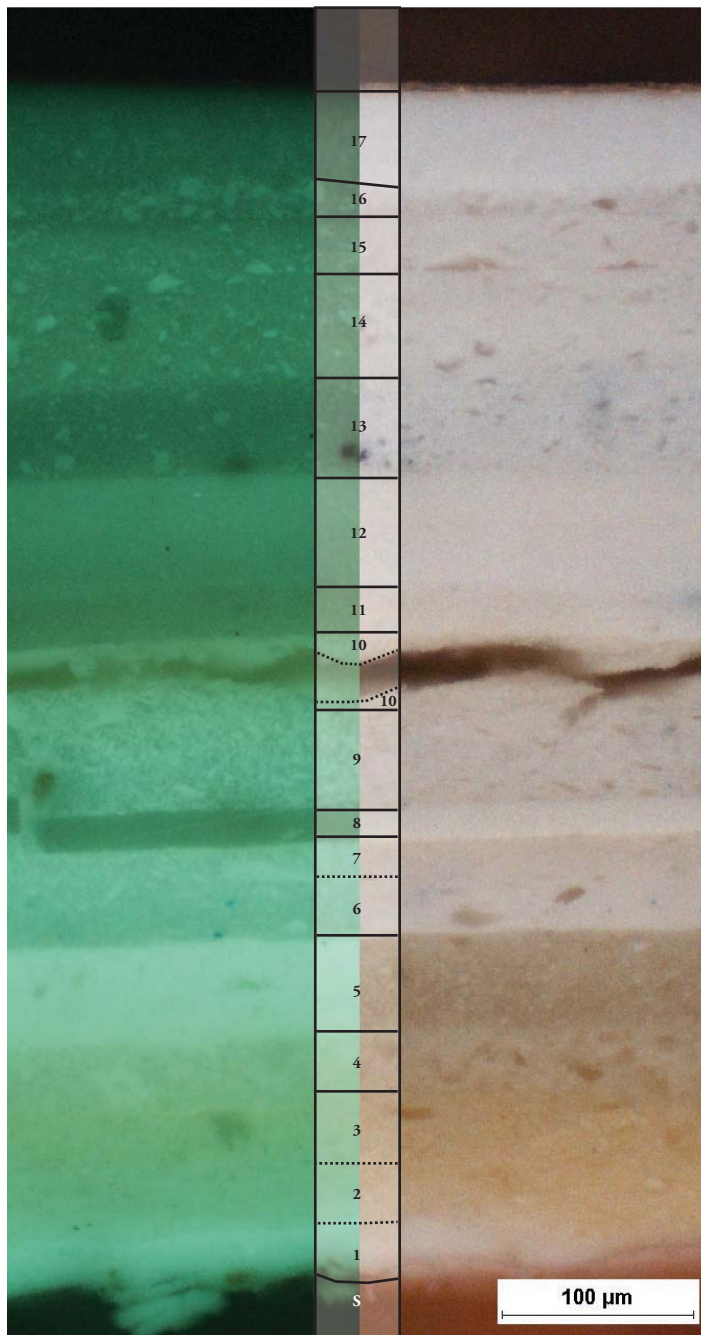
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
6 E. Cecelio Dominguez Street

Sample Number: 6 :H: 1	Element: cornice/soffit	Date Sampled: 02/13/11
Sample Location: fascia board west		Date Analyzed: 04/09/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

14	17	white
13	16	off white
12	15	off white
11	14	off white
10	13	white
9	12	off white
8	11	off white
7	10	cream
6	9	/light tan
5	8	off white
4	7	light tan
3	6	light tan
2	5	light brown tan
1	4	light brown tan
	3	yellow cream
	2	yellow cream
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: yellow cream

Munsell Color F1: 2.5Y 8.5/6 -2.5Y 8.5/4

Probable Medium: oil

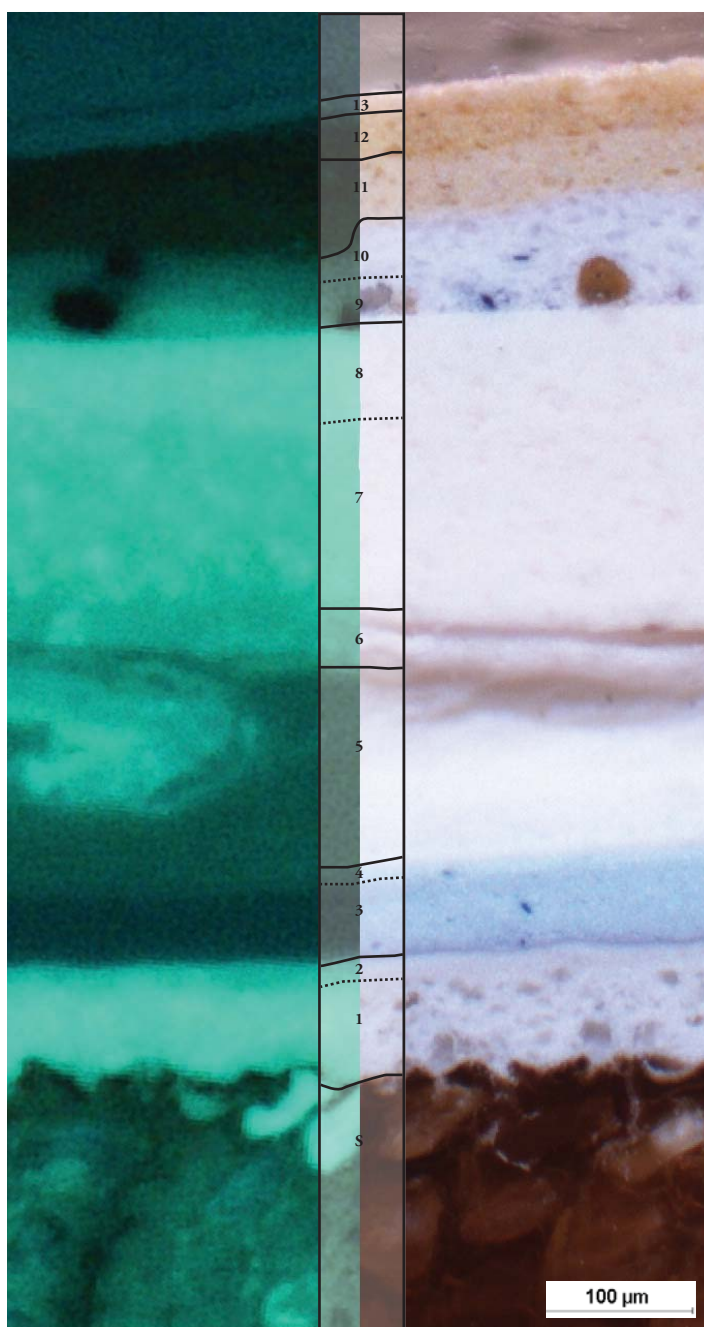
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding above door		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

9	13	orange yellow
8	12	orange yellow
7	11	light yellow
6	10	white
	9	white
5	8	cream
	7	cream
4	6	off white
3	5	/white
2	4	pale blue
	3	light blue
1	2	off white
	1	off white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Muncell Color F1: 10Y 9/1

Probable Medium: oil

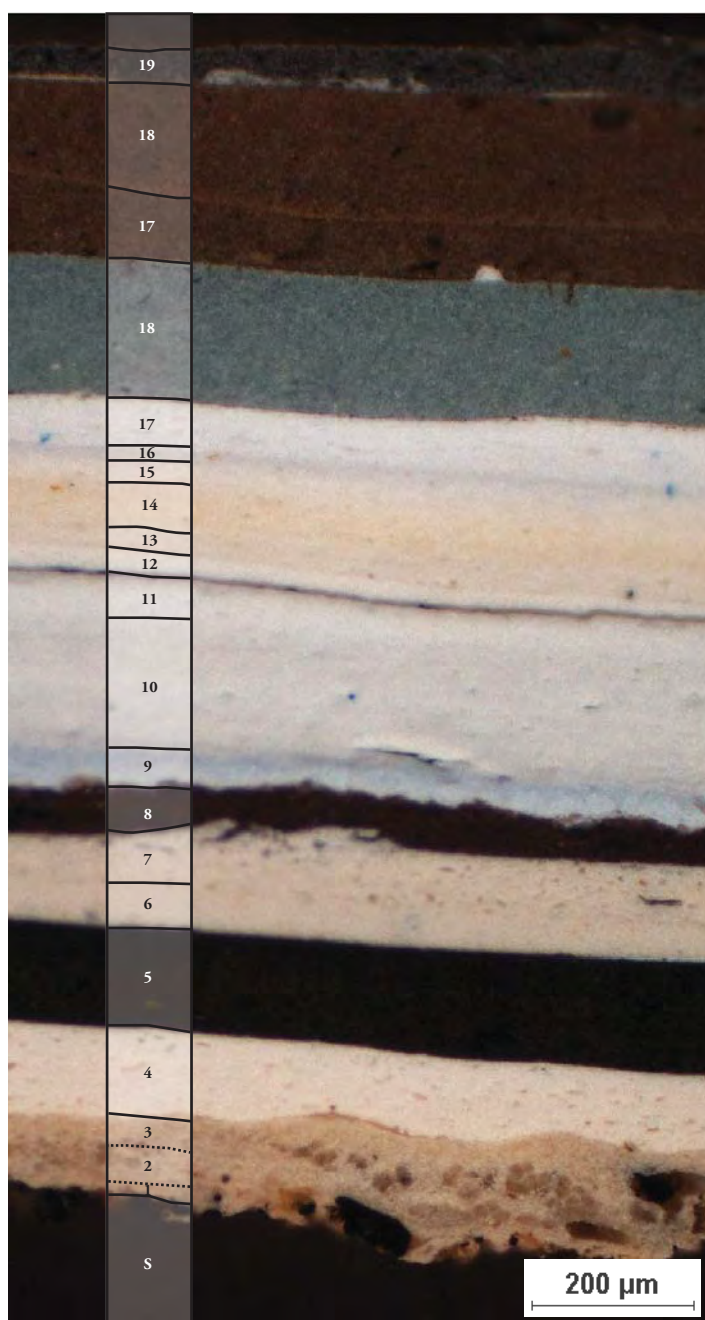
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :A: 3	Element: wall	Date Sampled: 02/13/11
Sample Location: baseboard		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

19	21	blue grey
18	20	brown
17	19	brown
16	18	light grey blue
15	17	*white blue
14	16	white blue
13	15	cream
12	14	yellow
11	13	cream
10	12	white
9	11	/*white
8	10	blue white
7	9	light blue
6	8	red brown
5	7	cream
4	6	cream
3	5	dark brown
2	4	off white
1	3	/tan
	2	brown tan
	1	off white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: tan

Muncell Color F1: 5Y 8/1 - 5Y 2.5/2

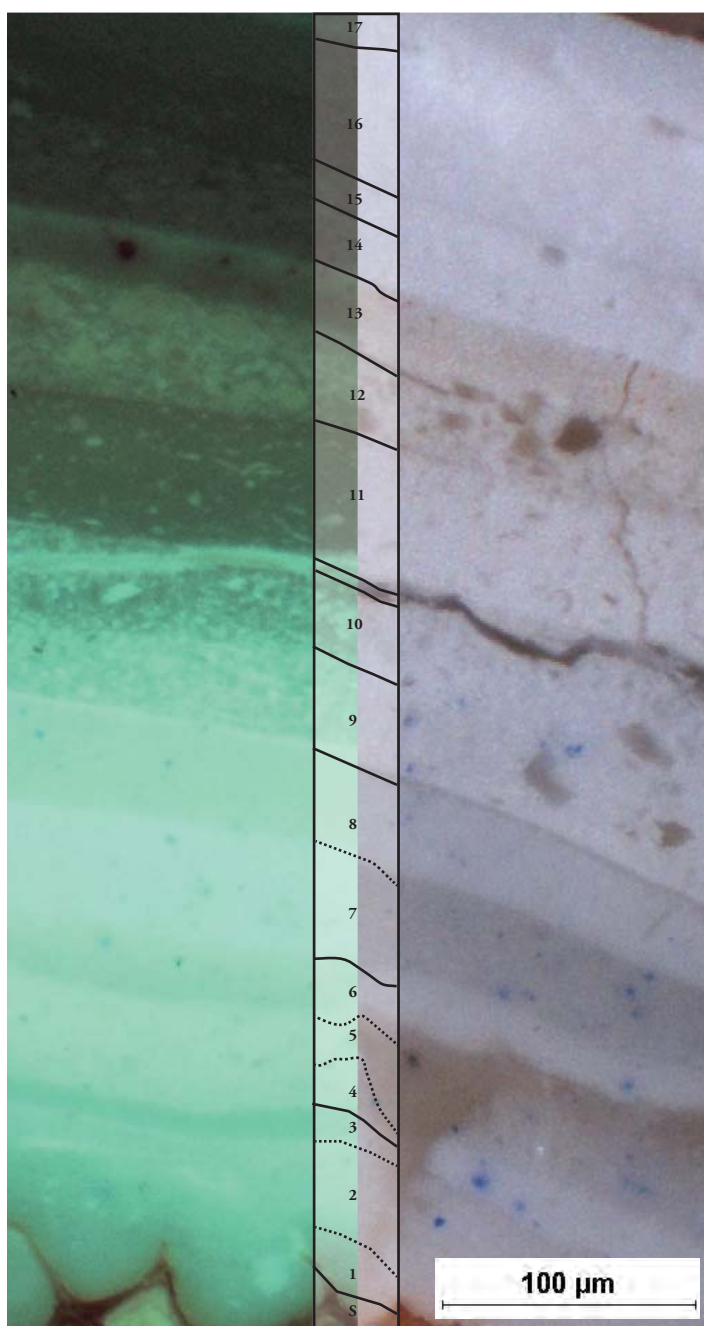
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :A: 5	Element: wall	Date Sampled: 02/13/11
Sample Location: trim, crown moulding above south door		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
12	17	white
11	16	white
10	15	*white
9	14	white
8	13	cream
7	12	/white cream
6	11	off white
5	10	/blue white
4	9	blue white
3	8	/blue white
	7	blue white
2	6	blue white
	5	blue white
	4	blue white
1	3	blue white
	2	blue white
	1	blue white
		substrate

/ : Fracture * : Dirt

Conclusions

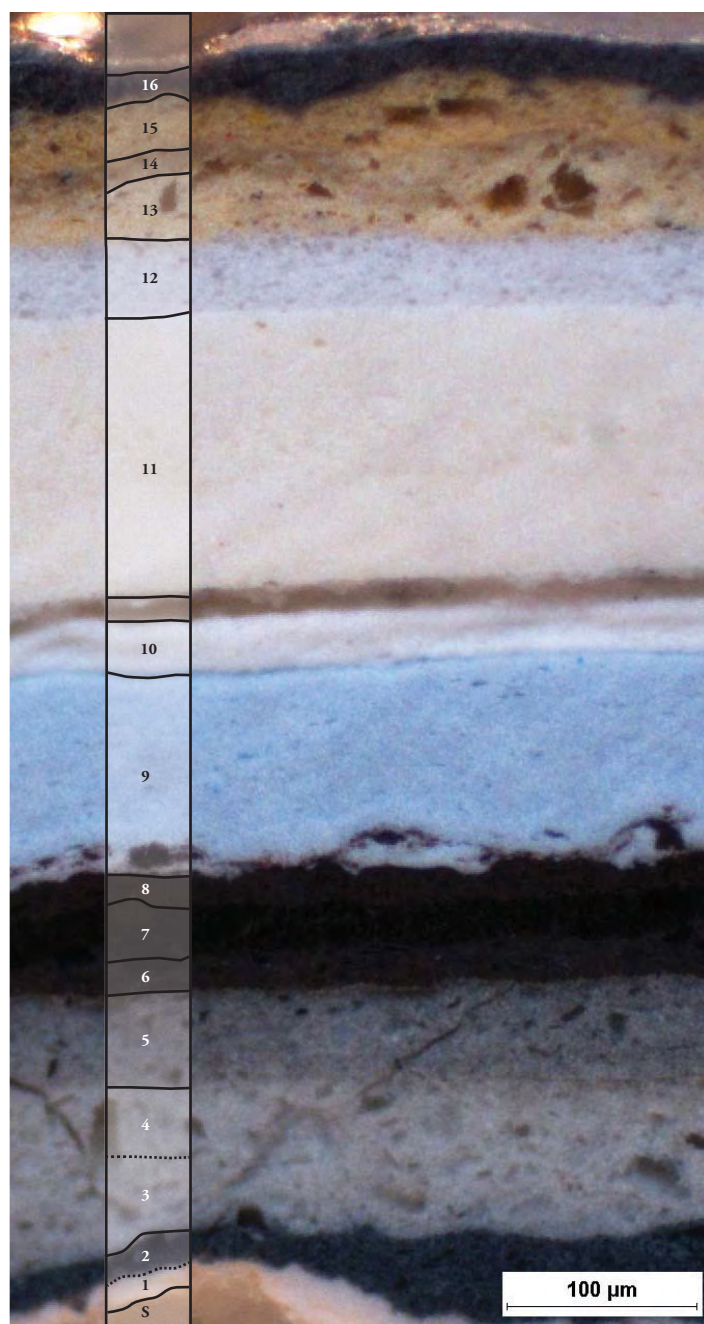
Color: F1: white
Muncell Color F1: 10Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :B: 1	Element: building base	Date Sampled: 02/13/11
Sample Location: central panel		Date Analyzed: 03/27/11
Substrate: concrete	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

14	16	blue grey
13	15	orange yellow
12	14	brown yellow
11	13	yellow
10	12	white
9	11	cream
8	10	white
7	9	/light blue
6	8	*red brown
5	7	dark brown
4	6	dark grey
3	5	grey
2	4	light grey
	3	light grey
1	2	dark blue grey
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: dark blue grey

Muncell Color F1: 10B 3.5/1

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :B: 2	Element: building base	Date Sampled: 02/13/11
Sample Location: dividers below columns		Date Analyzed: 03/27/11
Substrate: concrete	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

14	17	blue grey
13	16	orange yellow
12	15	yellow
11	14	blue white
10	13	*white
9	12	off white
8	11	/off white
7	10	*off white
6	9	*light blue
5	8	*red brown
4	7	dark brown
	6	dark grey
3	5	grey
2	4	light grey
	3	light grey
1	2	dark blue grey
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: dark blue grey

Muncell Color F1: 10B 3.5/1

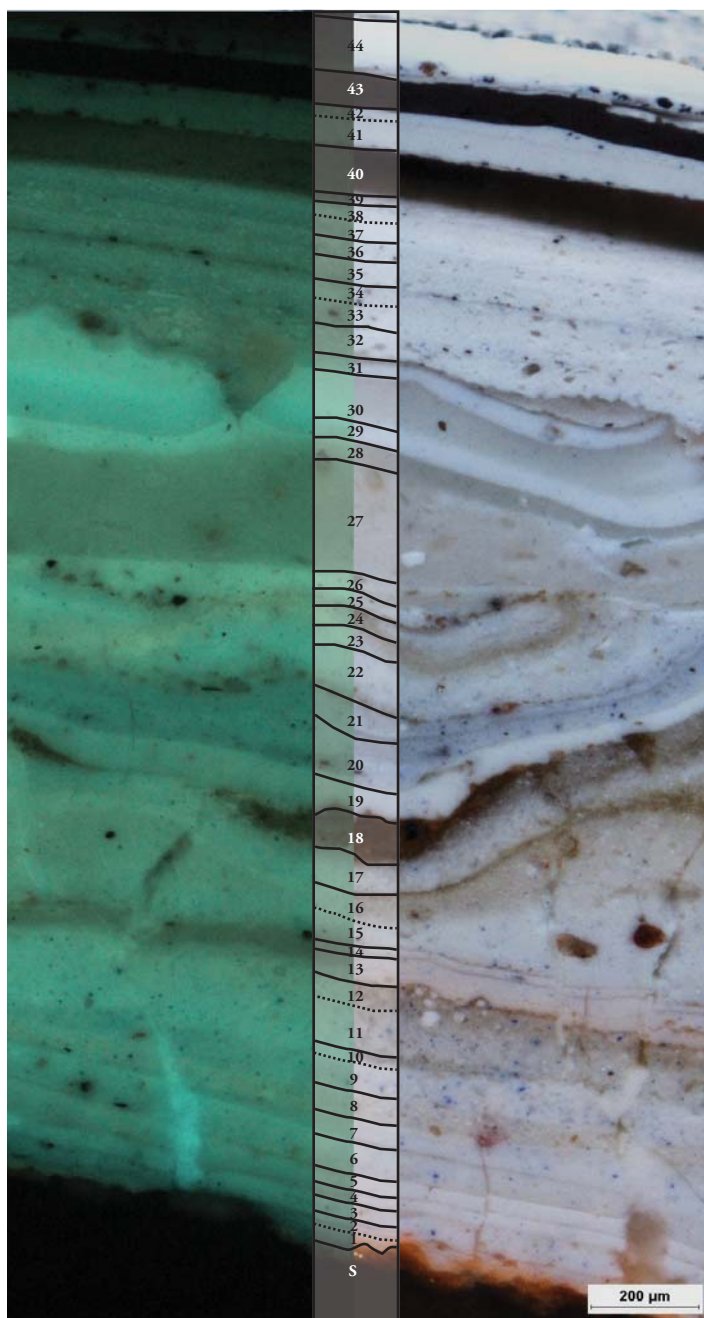
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :C: 3	Element: column	Date Sampled: 02/13/11
Sample Location: capital		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2	Objective: 4x	
Analysis Performed by: Betty Prime	Camera: Nikon DS-Fi1	



Stratigraphy

Scheme/Layer		Color
21	25	blue white
20	24	*blue white
19	23	tan
18	22	blue white
17	21	*light blue
16	20	*light blue
15	19	*white
14	18	tan
13	17	blue white
12	16	*off white
11	15	blue white
10	14	*pink white
9	13	*pink white
8	12	*blue white
7	11	blue white
6	10	blue white
5	9	blue white
4	8	off white
3	7	blue white
2	6	*blue white
1	5	*white
	4	*white
	3	*blue white
	2	/*off white
	1	white
		substrate

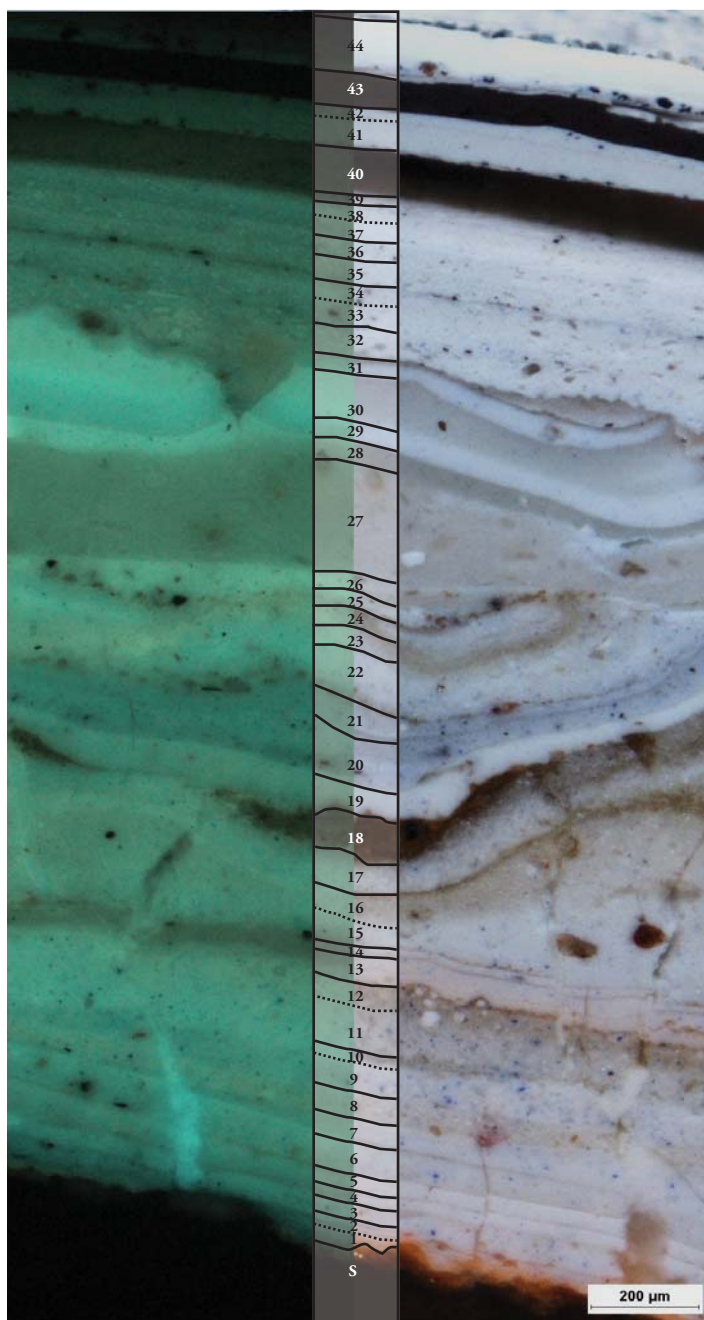
/ : Fracture * : Dirt

Continued onto the next page

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :C: 3	Element: column	Date Sampled: 02/13/11
Sample Location: capital		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
36	43	*white
35	42	*/dark brown
	41	white
34	40	white
33	39	/white
32	38	off white
31	37	off white
	36	off white
30	35	off white
29	34	*off white
28	33	off white
	32	off white
27	31	blue white
26	30	blue white
25	29	blue tan
24	28	blue white
23	27	blue tan
22	26	off white

/ : Fracture * : Dirt

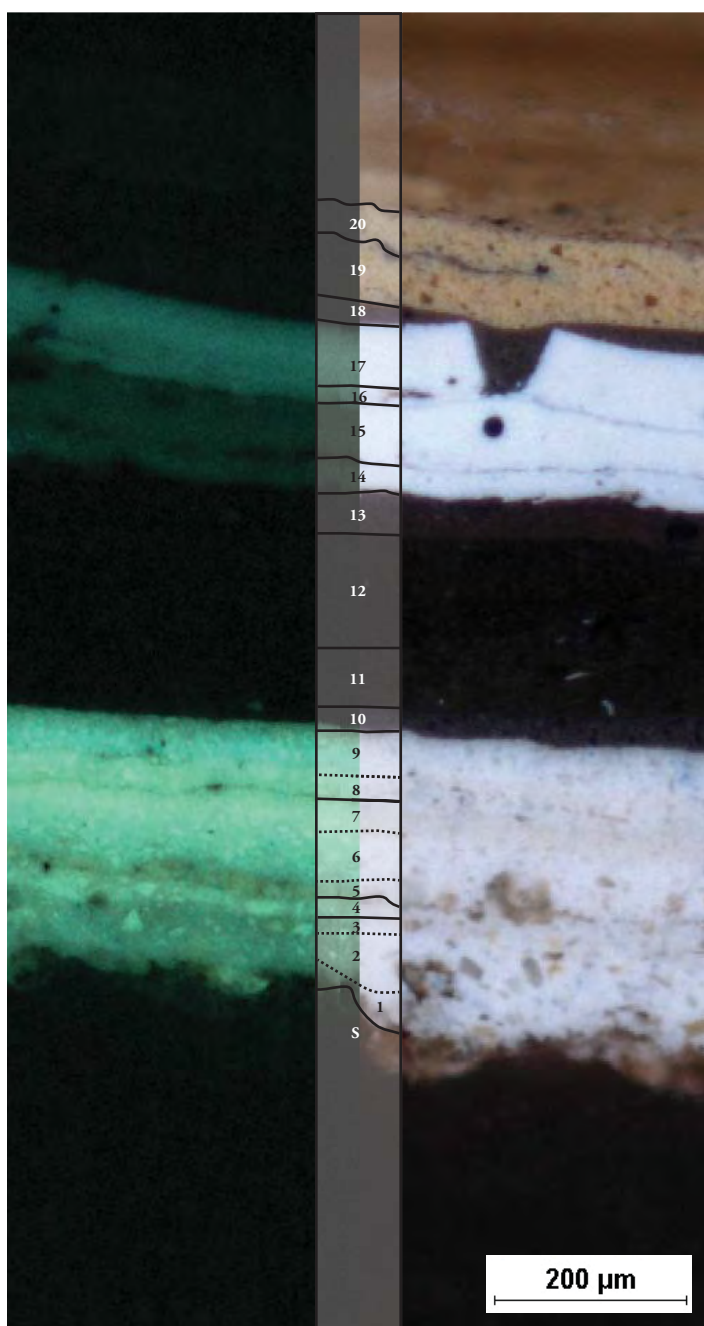
Conclusions

Color: F1: off white
Muncell Color F1: 10Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :D: 1	Element: porch railing	Date Sampled: 02/13/11
Sample Location: middle		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
15	20	orange yellow
14	19	*orange yellow
13	18	dark brown
12	17	white
11	16	white
10	15	*white
9	14	*white
8	13	red brown
7	12	dark brown
6	11	green brown
5	10	dark grey
4	9	blue white
	8	blue white
	7	off white
3	6	off white
	5	off white
2	4	*off white
	3	*off white
1	2	white
	1	white
		substrate

/ : Fracture * : Dirt

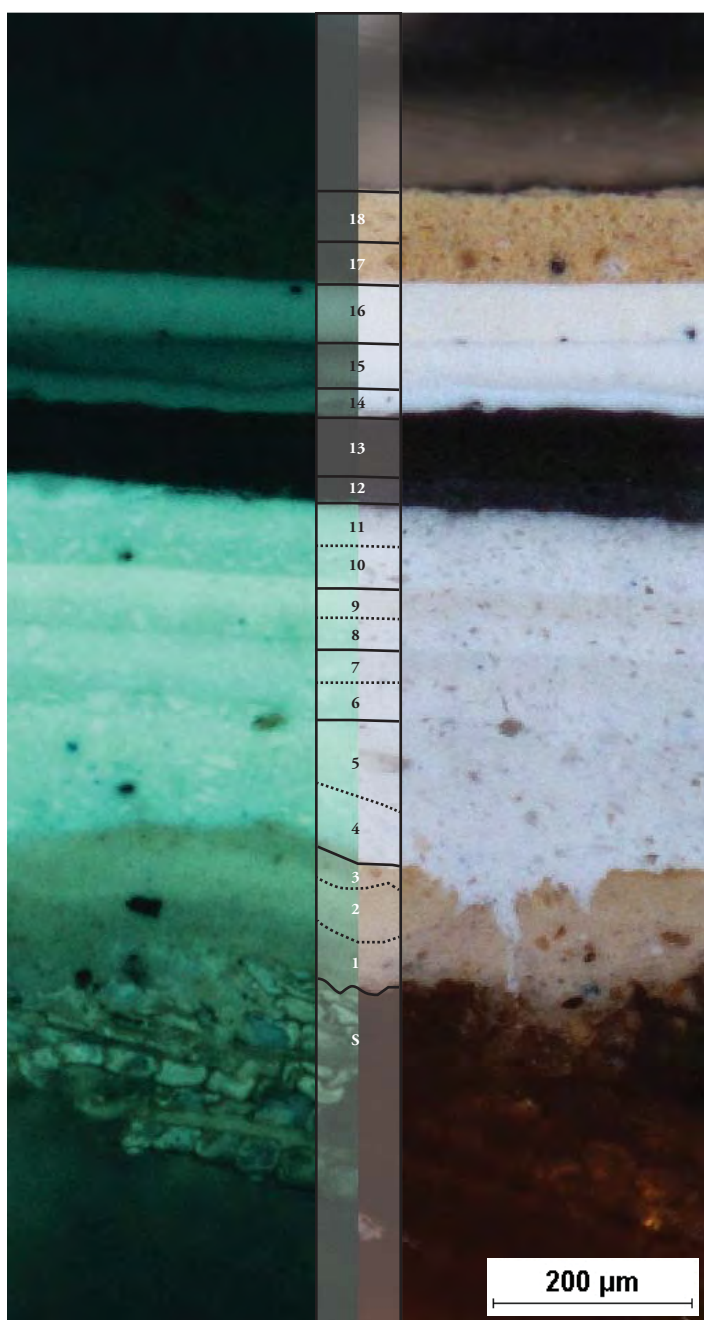
Conclusions

Color: F1: off white
Muncell Color F1: 10Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :D: 2	Element: porch railing	Date Sampled: 02/13/11
Sample Location: balustrade		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

13	18	orange yellow
12	17	orange yellow
11	16	cream
10	15	cream
9	14	blue white
8	13	dark brown
7	12	dark grey
6	11	white
	10	white
	9	off white
5	8	off white
	7	off white
4	6	off white
3	5	blue white
2	4	blue white
	3	pink cream
1	2	yellow cream
	1	pink cream
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: pink cream

Muncell Color F1: 7.5YR 9/2 - 10YR 9/4

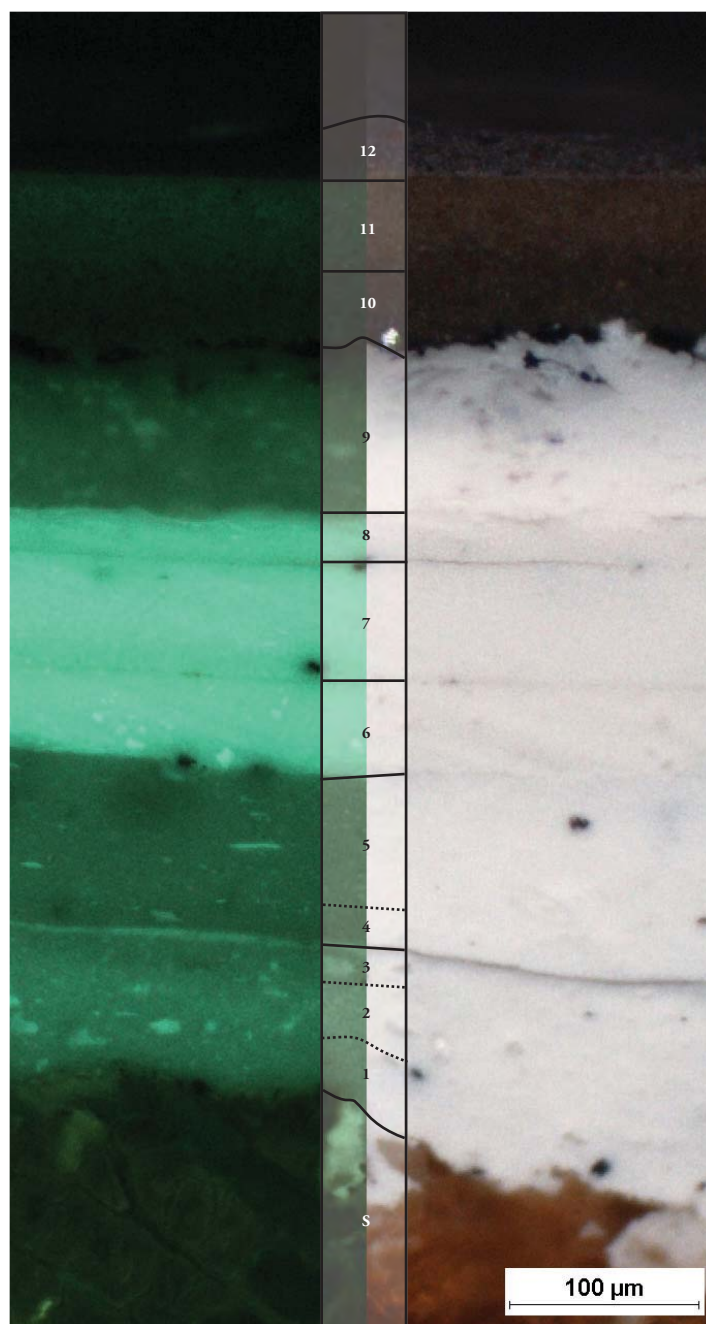
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 E: 1	Element: porch handrail	Date Sampled: 02/13/11
Sample Location: top		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

9	12	blue grey
8	11	brown
7	10	dark brown
6	9	*white
5	8	off white
4	7	*off white
3	6	*light cream
2	5	off white
	4	off white
1	3	/*off white
	2	off white
	1	off white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Muncell Color F1: 10Y 9/1

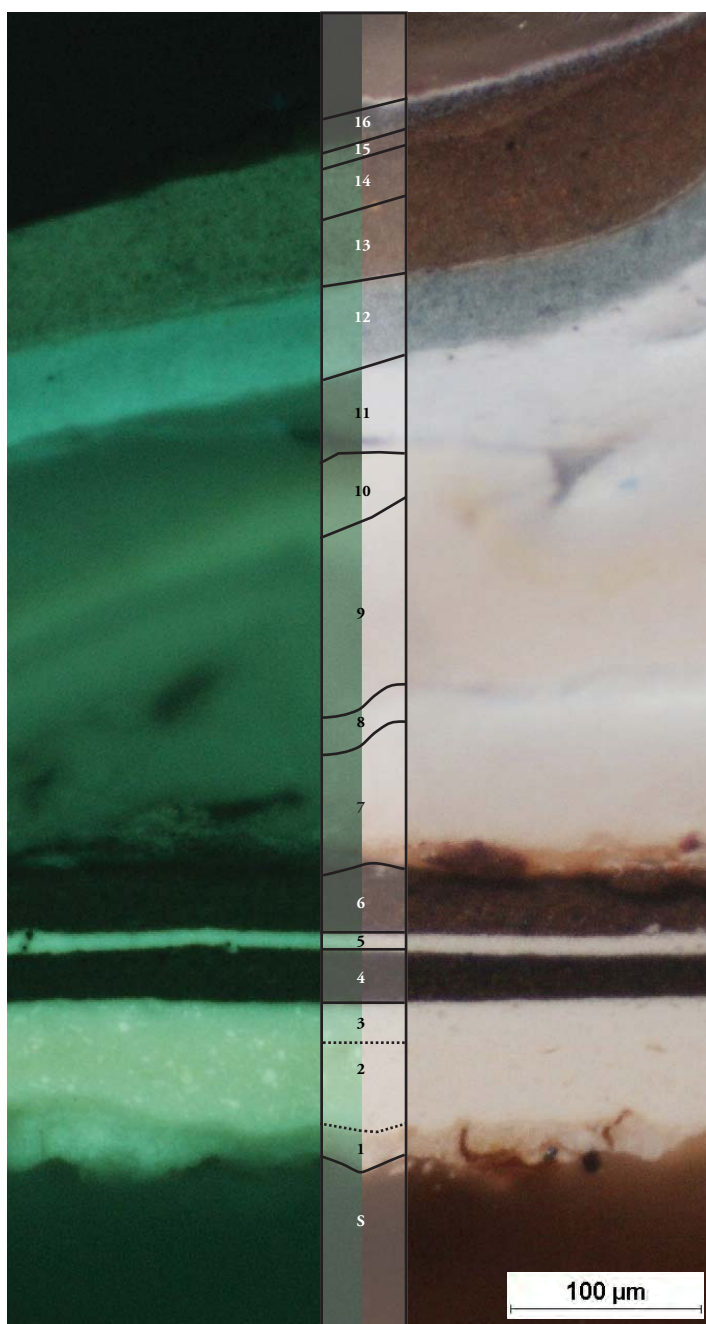
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 G: 2	Element: door frame	Date Sampled: 02/13/11
Sample Location:		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
13	16	blue grey
12	15	dark brown
11	14	dark brown
10	13	dark brown
9	12	blue
8	11	light blue
7	10	light yellow
6	9	cream
5	8	light blue
4	7	cream
3	6	red brown
	5	off white
2	4	dark red brown
	3	off white
1	2	off white
	1	light tan
		substrate

/ : Fracture * : Dirt

Conclusions

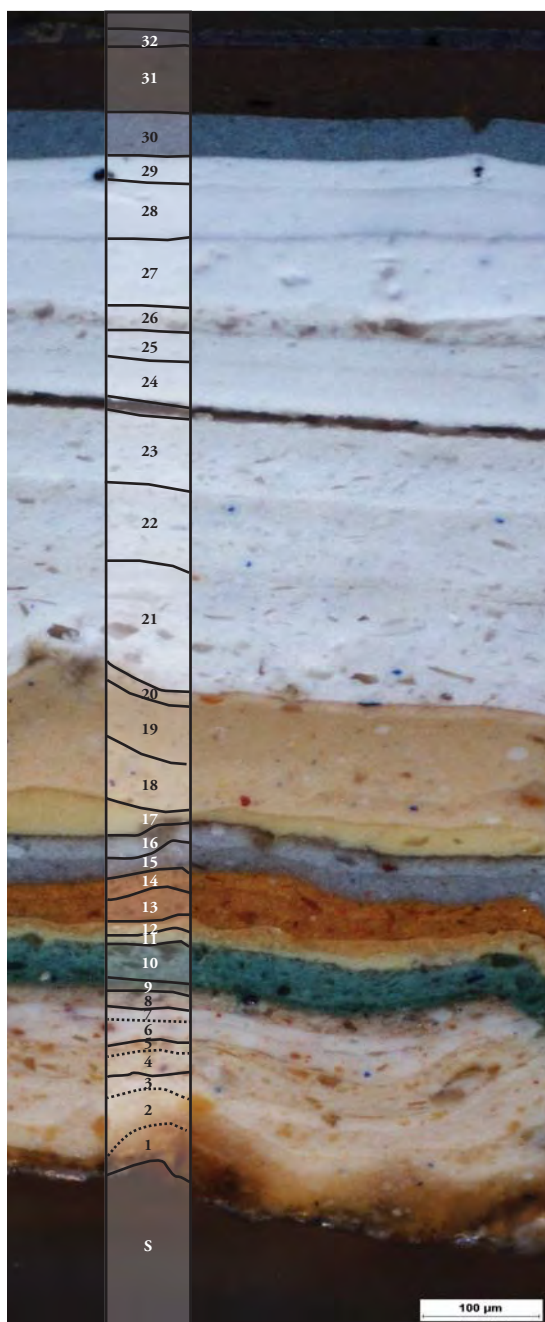
Color: F1: off white
Muncell Color F1: 10Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :F: 1	Element: door	Date Sampled: 02/13/11
Sample Location: north door		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

21	25	off white
20	24	/off white
19	23	off white
18	22	off white
17	21	off white
16	20	*tan
15	19	tan
14	18	tan
13	17	buff
12	16	*pale grey
11	15	light grey
10	14	orange
9	13	orange
8	12	orange yellow
7	11	pale yellow
6	10	*light green
5	9	medium green
4	8	*tan
3	7	pink cream
	6	pink cream
2	5	*yellow cream
	4	yellow cream
	3	pink cream
1	2	pink cream
	1	light brown
		substrate

/ : Fracture * : Dirt

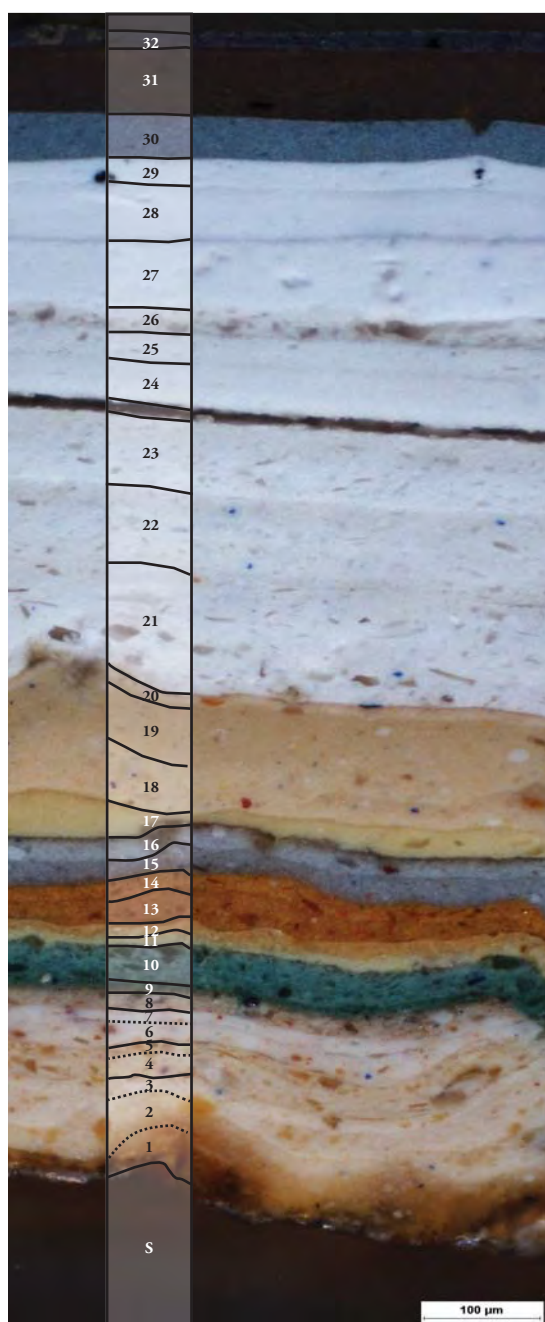
Continued onto the next page

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :F: 1	Element: door	Date Sampled: 02/13/11
Sample Location: north door		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

28	32
27	31
26	30
25	29
24	28
23	27
22	26

grey blue

deep brown

blue grey

white

*white

*white

off white

/ : Fracture * : Dirt

Conclusions

Color: F1: pink cream

Muncell Color F1: 7.5 YR 9/2, 10YR 9/4

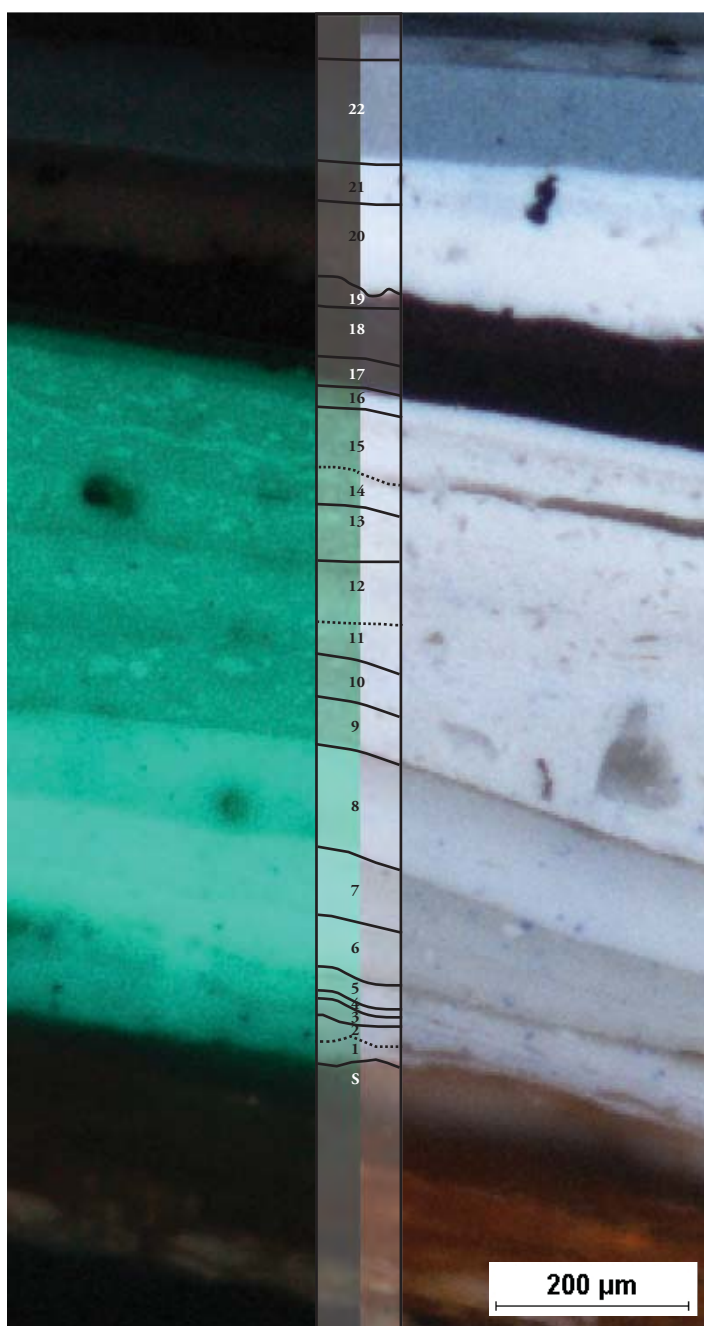
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :H:5	Element: cornice/soffit	Date Sampled: 02/13/11
Sample Location: underside board, soffit		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
19	22	blue grey
18	21	white
17	20	white
16	19	red brown
15	18	dark brown
14	17	green brown
13	16	white
12	15	off white
11	14	/off white
	13	off white
10	12	off white
9	11	off white
	10	off white
8	9	off white
7	8	blue white
6	7	blue white
5	6	blue white
4	5	blue white
3	4	blue white
2	3	blue white
1	2	blue white
	1	blue white
		substrate

/ : Fracture * : Dirt

Conclusions

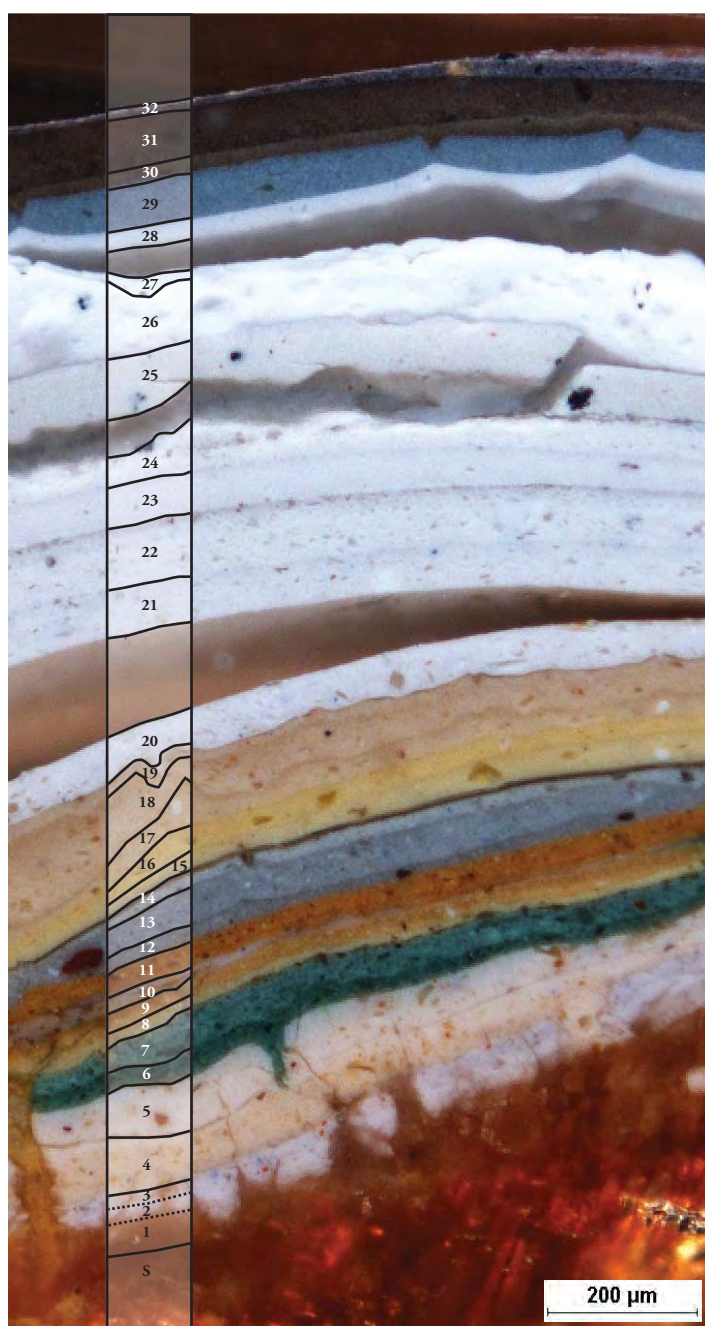
Color: F1: white
Muncell Color F1: 10Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :K:1	Element: window shutter	Date Sampled: 02/13/11
Sample Location: left edge, 2nd window from north		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

23	25
22	24
21	23
20	22
19	21
18	20
17	19
16	18
15	17
14	16
13	15
12	14
11	13
10	12
9	11
8	10
7	9
6	8
5	7
4	6
3	5
2	4
1	3
	2
	1

Color

/off white
/off white
*off white
*off white
*off white
*off white
/tan
*tan
tan
yellow
*pale yellow
/*pale grey
*medium grey
grey
orange
white
orange yellow
pale yellow
*light green
medium green
*pink cream
*yellow cream
white
white
light brown
substrate

/: Fracture *: Dirt

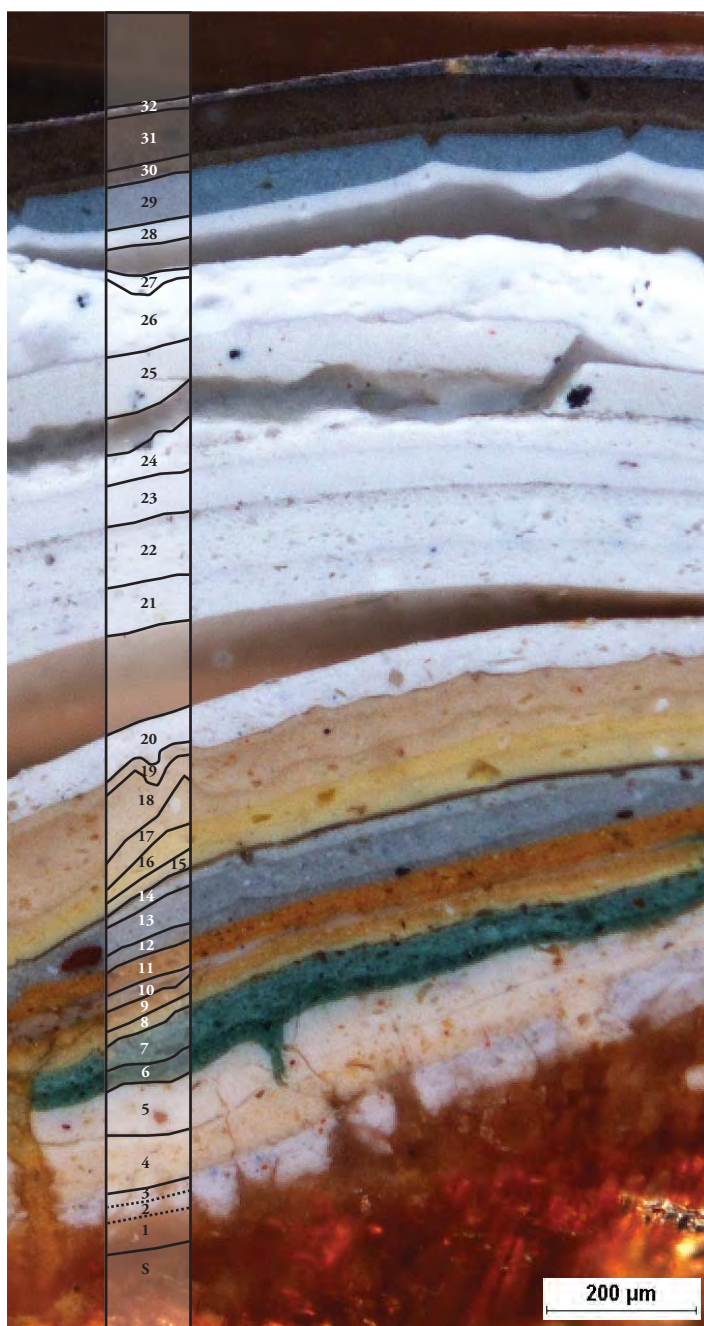
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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

43 Ashford Street

Sample Number: 43 :K:1	Element: window shutter	Date Sampled: 02/13/11
Sample Location: left edge, 2nd window from north		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

30	32
29	31
28	30
27	29
26	28
25	27
24	26

grey blue

deep brown

brown

grey blue

off white

/white

white

/ : Fracture * : Dirt

Conclusions

Color: F1: pink cream

Muncell Color F1: 7.5 YR 9/2, 10YR 9/4

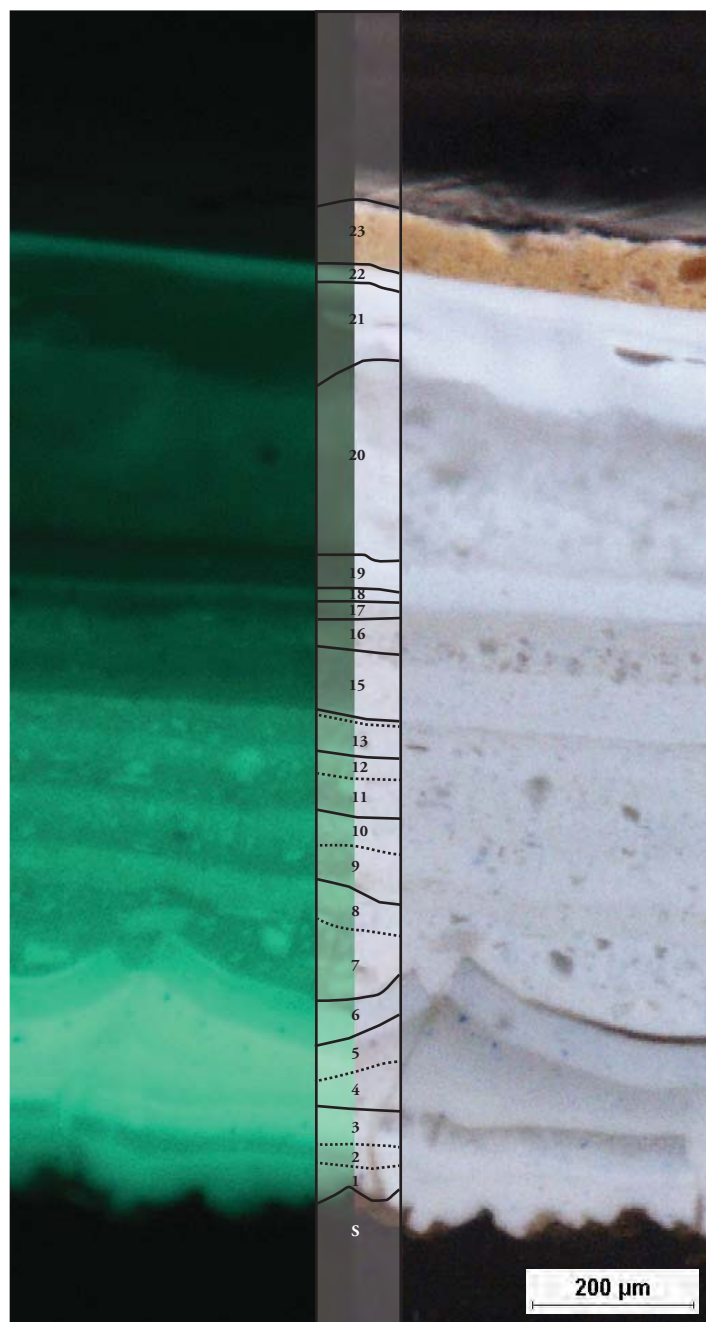
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
43 Ashford Street

Sample Number: 43 :L: 1	Element: ceiling	Date Sampled: 02/13/11
Sample Location: ceiling #2		Date Analyzed: 03/27/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
16	23	orange yellow
15	22	white
14	21	white
13	20	off white
12	19	white
11	18	white
10	17	*cream
9	16	cream
8	15	off white
7	14	*off white
	13	off white
6	12	off white
	11	off white
5	10	off white
	9	off white
4	8	off white
	7	off white
3	6	/blue white
2	5	blue white
	4	blue white
1	3	blue white
	2	blue white
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

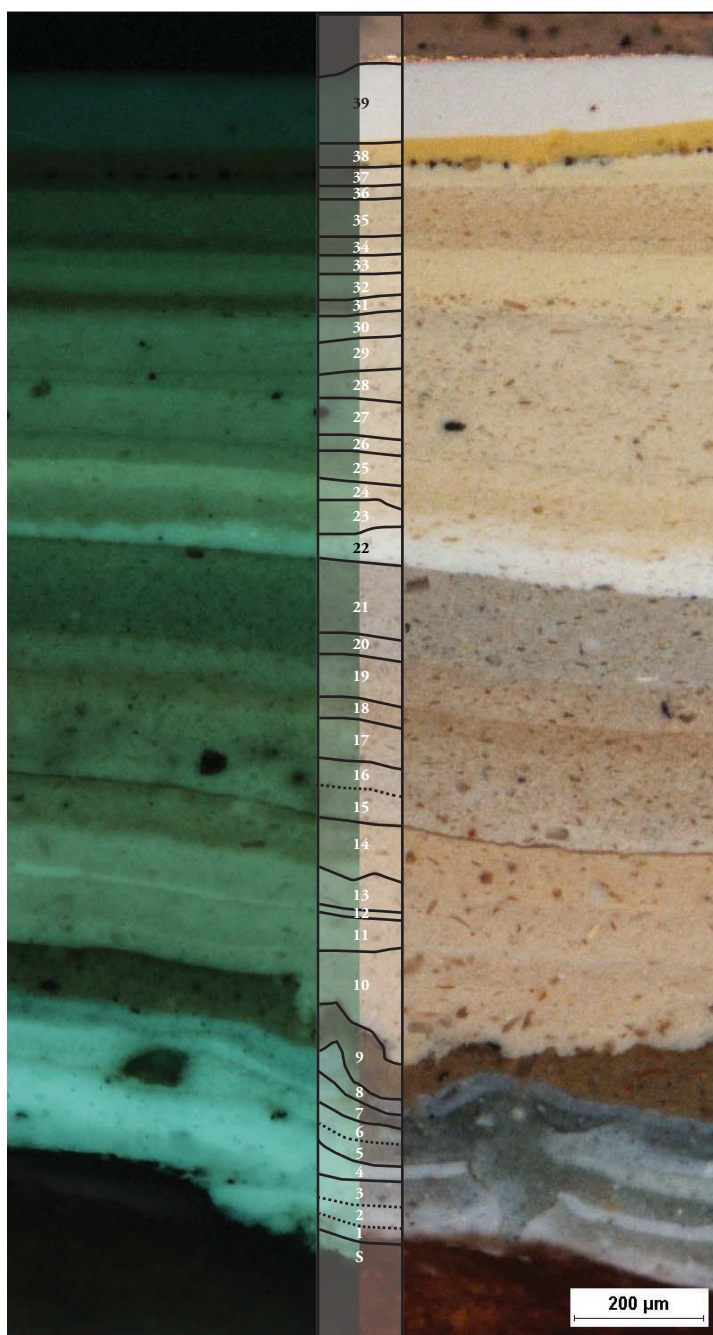
Color: F1: white
Muncell Color F1: 10Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :A: 2	Element: wall	Date Sampled: 02/12/11
Sample Location: siding next to south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

19	25	*tan
18	24	pink tan
17	23	pink tan
16	22	off white
15	21	*grey tan
14	20	grey tan
13	19	tan
12	18	dark tan
11	17	tan
10	16	tan
	15	tan
9	14	/pink cream
8	13	pink cream
7	12	off white
	11	pink cream
6	10	pink cream
	9	brown
5	8	dark blue grey
4	7	dark grey
3	6	*blue grey
	5	grey
2	4	white
1	3	blue grey
	2	white
	1	light blue grey
		substrate

/: Fracture *: Dirt

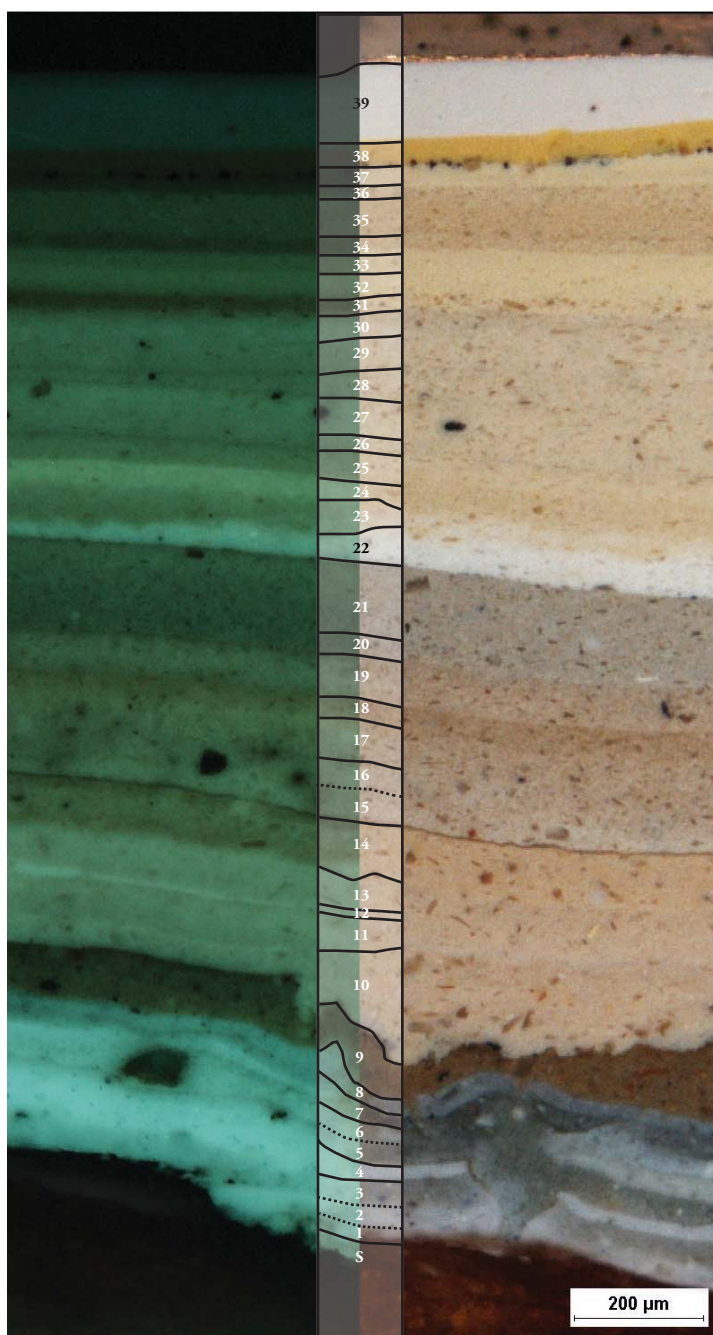
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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :A: 2	Element: wall	Date Sampled: 02/12/11
Sample Location: siding next to south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

33	39	*white
32	38	yellow
31	37	*yellow tan
30	36	dark tan
29	35	dark tan
28	34	dark tan
27	33	yellow tan
26	32	yellow tan
25	31	yellow tan
24	30	tan
23	29	tan
22	28	tan
21	27	tan
20	26	tan

/ : Fracture * : Dirt

Conclusions

Color: F1: blue grey

Munsell Color F1: 5PB 9/1

Probable Medium: oil

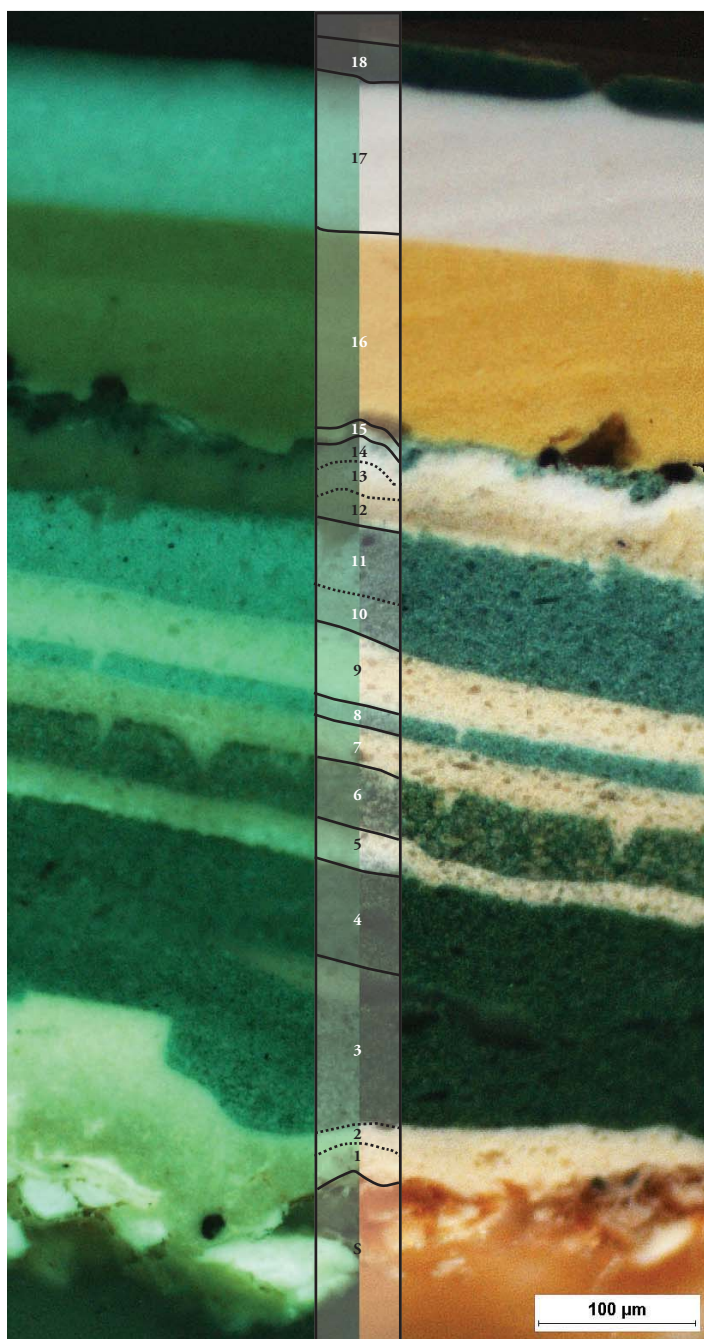
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :A: 3	Element: wall	Date Sampled: 02/12/11
Sample Location: baseboard		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
13	18	dark green
12	17	white
11	16	yellow
10	15	/*green
9	14	white
	13	cream
	12	dark cream
8	11	blue green
	10	blue green
7	9	cream
6	8	blue green
5	7	cream
4	6	dark green
3	5	cream
2	4	dark green
1	3	/dark green
	2	cream
	1	cream
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: dark green

Munsell Color F1: 5G 2/6

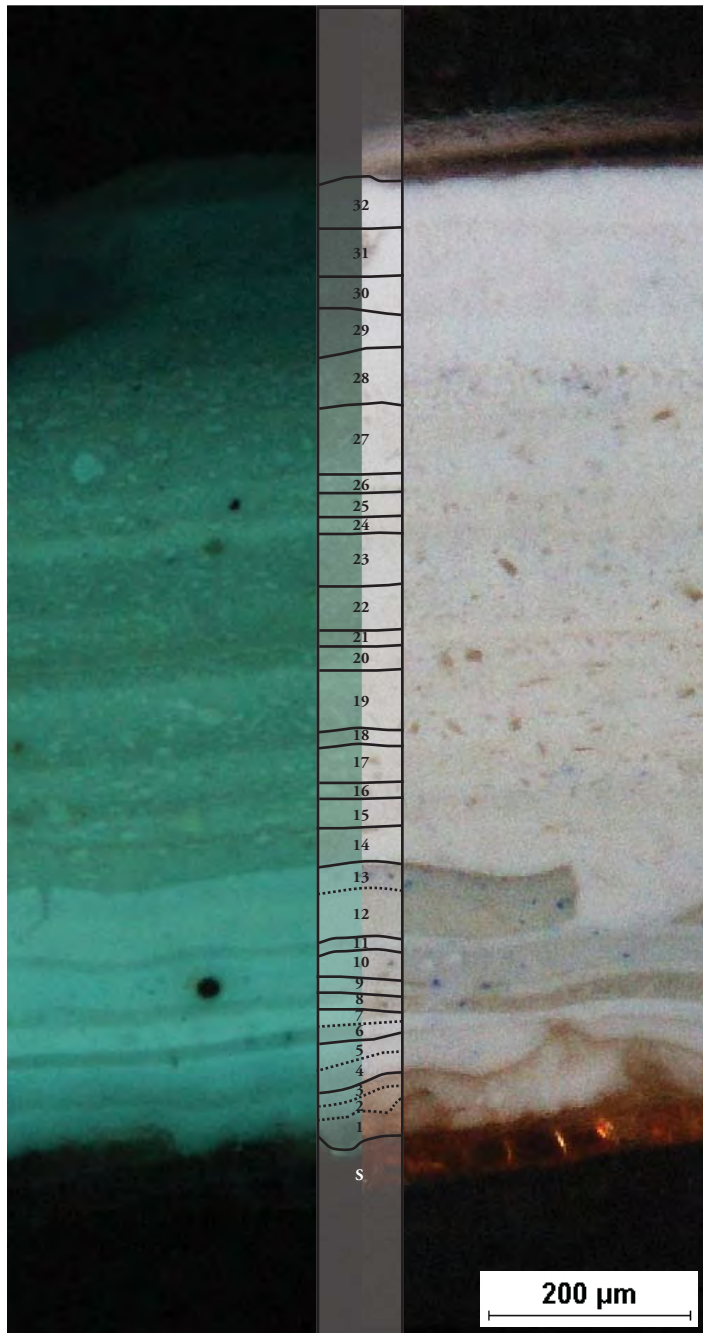
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
3 Ashford Street

Sample Number: 3 :A: 7	Element: wall	Date Sampled: 02/12/11
Sample Location: crown moulding above south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

20	25	off white
19	24	off white
18	23	off white
17	22	off white
16	21	off white
15	20	off white
14	19	off white
13	18	off white
12	17	off white
11	16	off white
10	15	off white
9	14	off white
8	13	*tan
	12	tan
7	11	white
6	10	off white
5	9	*white
4	8	tan
3	7	white
	6	white
2	5	white
	4	white
1	3	*white (very thin)
	2	off white
	1	off white
		substrate

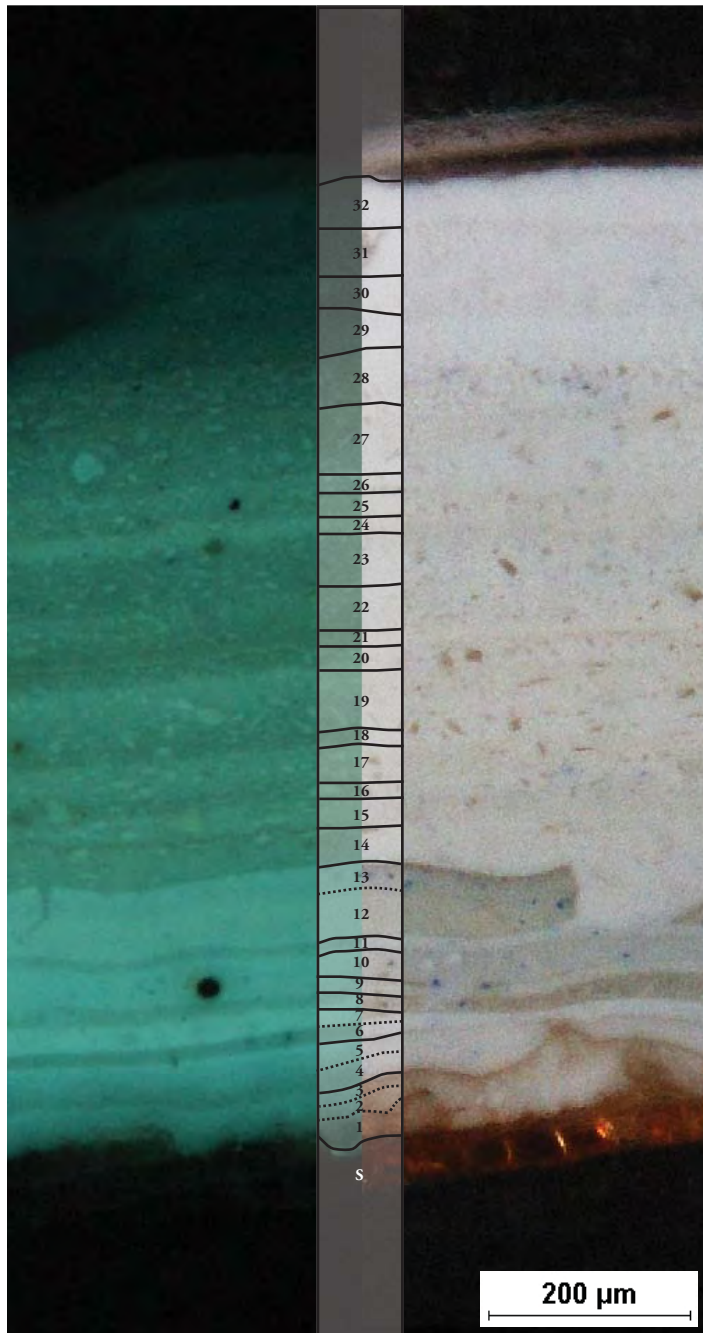
/ : Fracture * : Dirt

Continued onto the next page

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
3 Ashford Street

Sample Number: 3 :A: 7	Element: wall	Date Sampled: 02/12/11
Sample Location: crown moulding above south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

27	32
26	31
25	30
24	29
23	28
22	27
21	26

white
white
white
white
off white
off white
off white
/ : Fracture * : Dirt

Conclusions

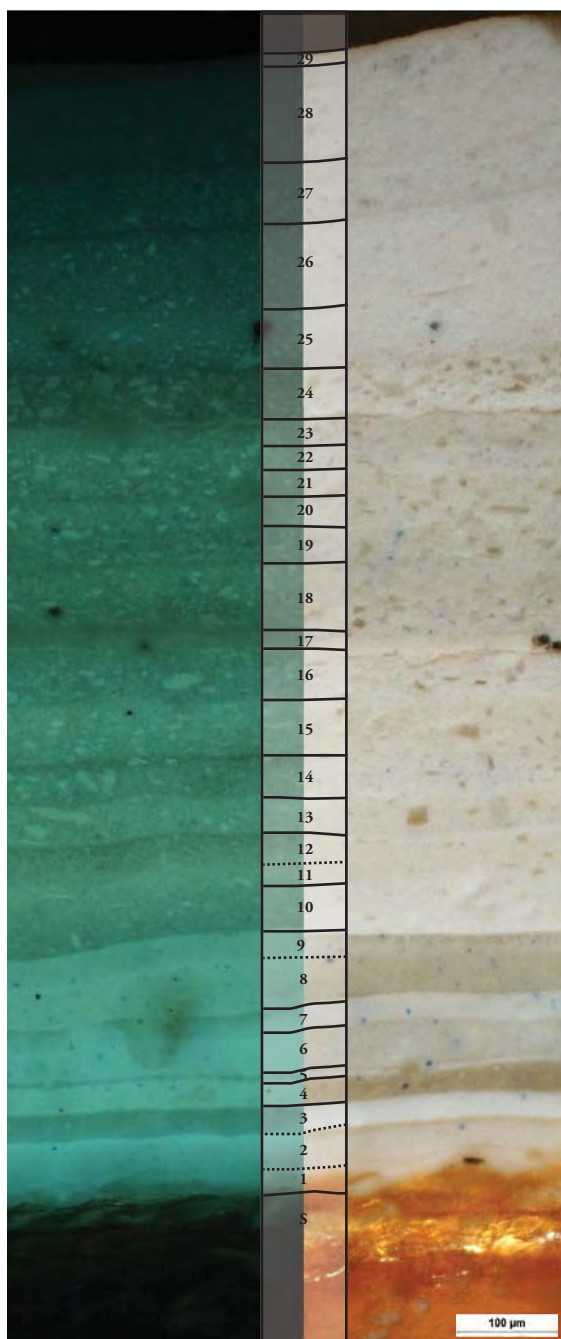
Color: F1: white
Munsell Color F1: 5Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :A: 5	Element: wall	Date Sampled: 02/12/11
Sample Location: moulding diamond pattern, above south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

21	25	off white
20	24	off white
19	23	/*off white
18	22	off white
17	21	off white
16	20	off white
15	19	off white
14	18	off white
13	17	/off white
12	16	off white
11	15	off white
10	14	off white
9	13	/off white
	12	off white
8	11	off white
7	10	off white
	9	*tan
6	8	tan
5	7	off white
4	6	off white
3	5	white
2	4	off white
1	3	*white
	2	white
	1	white
		substrate

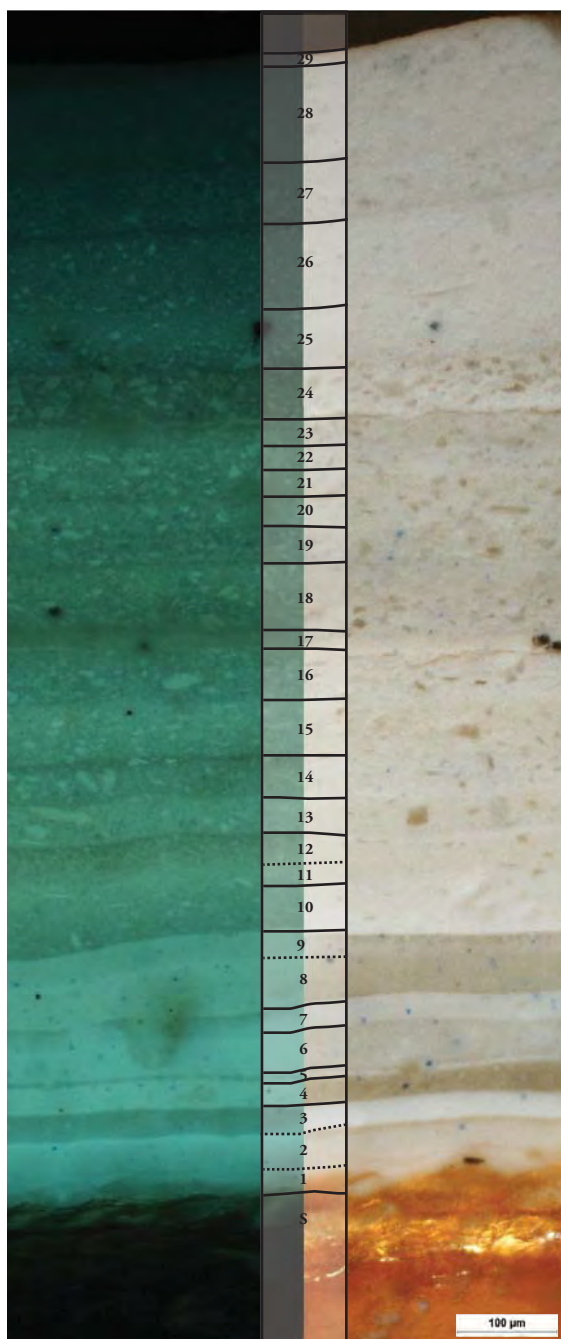
/: Fracture *: Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
3 Ashford Street

Sample Number: 3 :A: 5	Element: wall	Date Sampled: 02/12/11
Sample Location: moulding diamond pattern, above south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

25	29
24	28
23	27
22	26

white

white

*white

*white

/ : Fracture * : Dirt

Conclusions

Color: F1: white

Munsell Color F1: 5Y 9/1

Probable Medium: oil

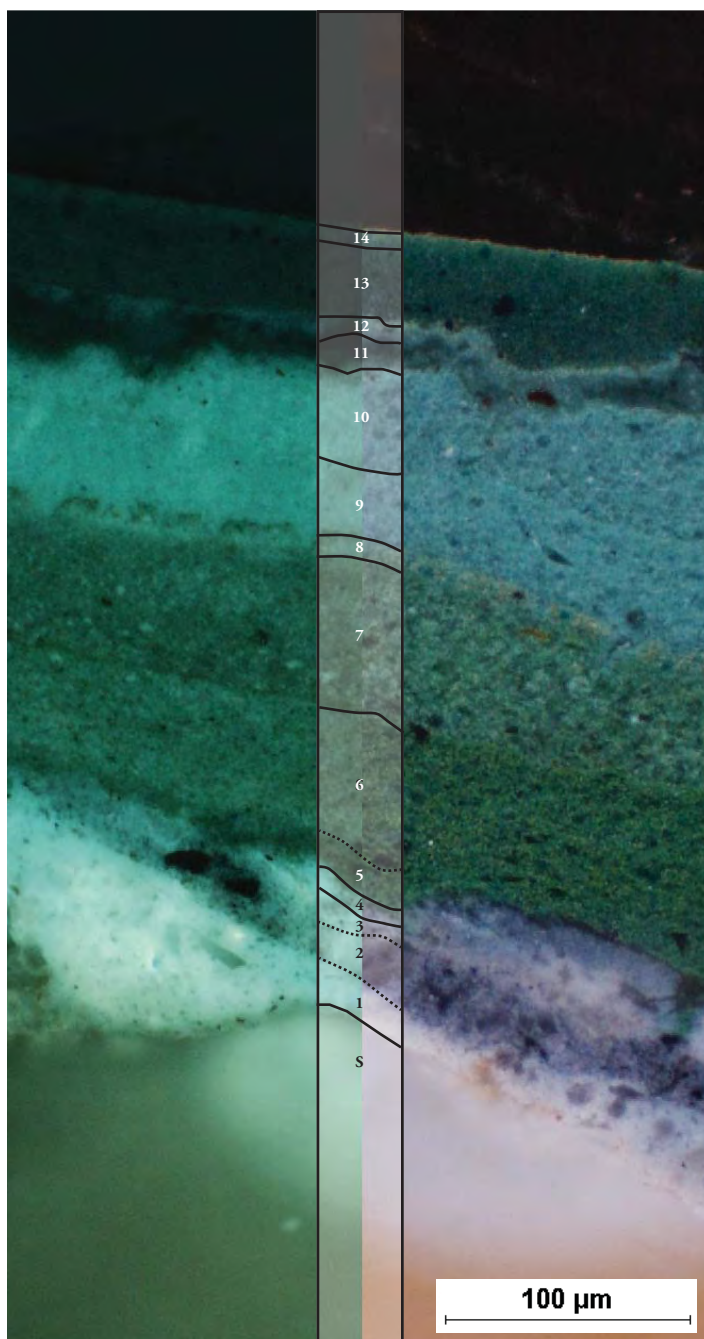
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :B: 1	Element: building base	Date Sampled: 02/12/11
Sample Location: far south bay		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

12	14	*green
11	13	dark green
10	12	*blue green
9	11	dark green
8	10	blue green
7	9	blue green
6	8	green
5	7	light green
4	6	green
3	5	green
3	4	*blue grey
2	3	light grey blue
1	2	dark blue grey
	1	light blue grey
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: dark blue grey

Munsell Color F1: 10B 5/2

Probable Medium: oil

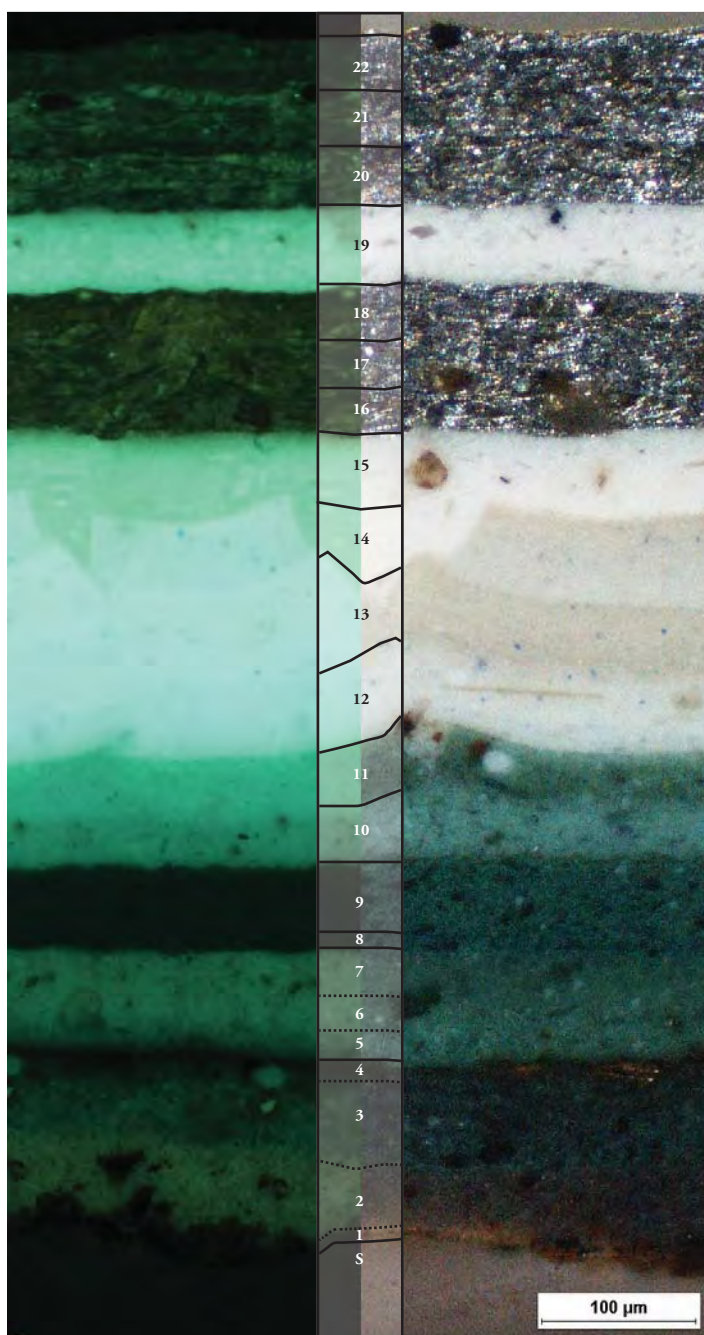
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :C: 3	Element: column	Date Sampled: 02/12/11
Sample Location: #2 from south, top		Date Analyzed: 04/06/11
Substrate: iron	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

17	22	silver
16	21	silver
15	20	silver
14	19	white
13	18	silver
12	17	silver
11	16	silver
10	15	white
9	14	cream
8	13	cream
7	12	white
6	11	/green
5	10	pale green
4	9	medium green
3	8	medium green
2	7	dark green
	6	medium green
	5	green
1	4	copper
	3	dark green
	2	dark grey
	1	brown orange
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: patinated bronze

Munsell Color F1:

Probable Medium: oil

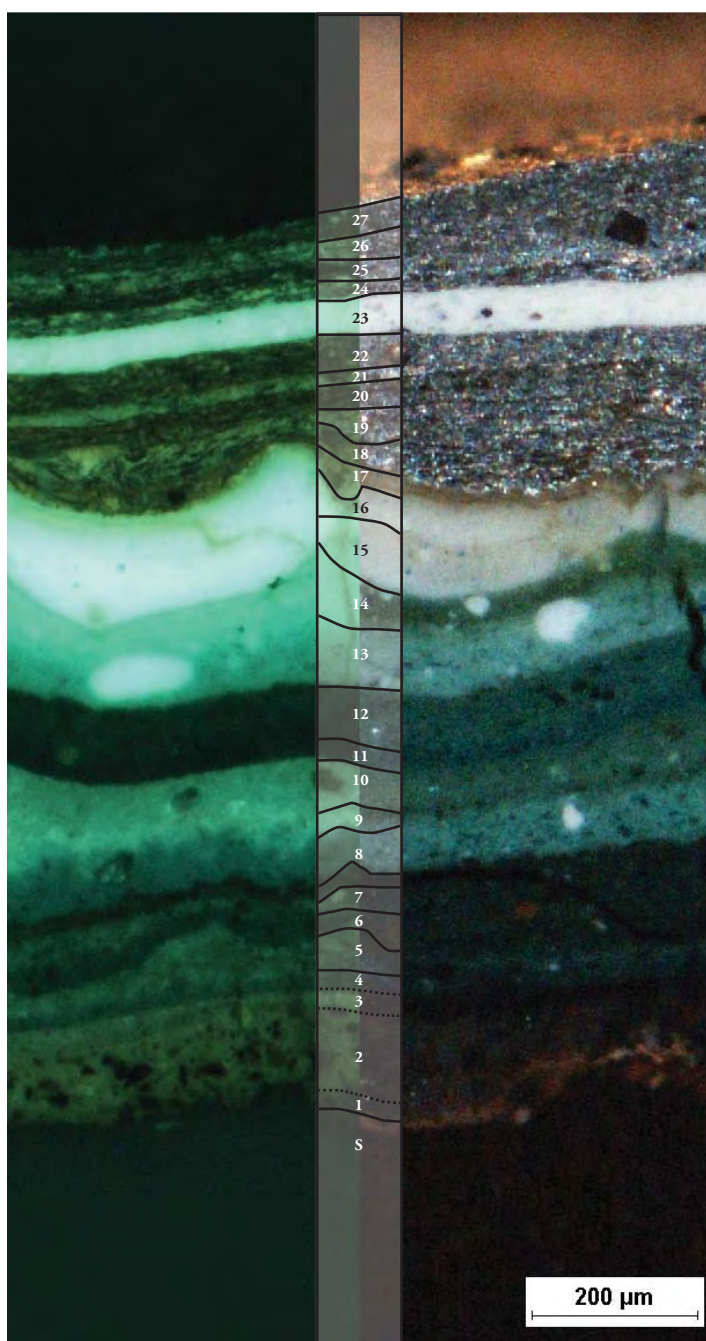
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :C: 1	Element: column	Date Sampled: 02/12/11
Sample Location: #2 from the south, middle detail of joint		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

24	27	silver
23	26	silver
22	25	silver
21	24	silver
20	23	white
19	22	silver
18	21	white
17	20	silver
16	19	silver
15	18	silver
14	17	*tan
13	16	off white
12	15	off white
11	14	medium green
10	13	light green
9	12	medium green
8	11	dark green
7	10	medium green
6	9	dark green
5	8	light-medium green
4	7	dark green
3	6	dark green
2	5	dark green
1	4	dark green
	3	green grey
	2	dark grey
	1	brown orange
		substrate

Conclusions

Color: F1: dark green

Munsell Color F1: 5G 2/2

Probable Medium: oil

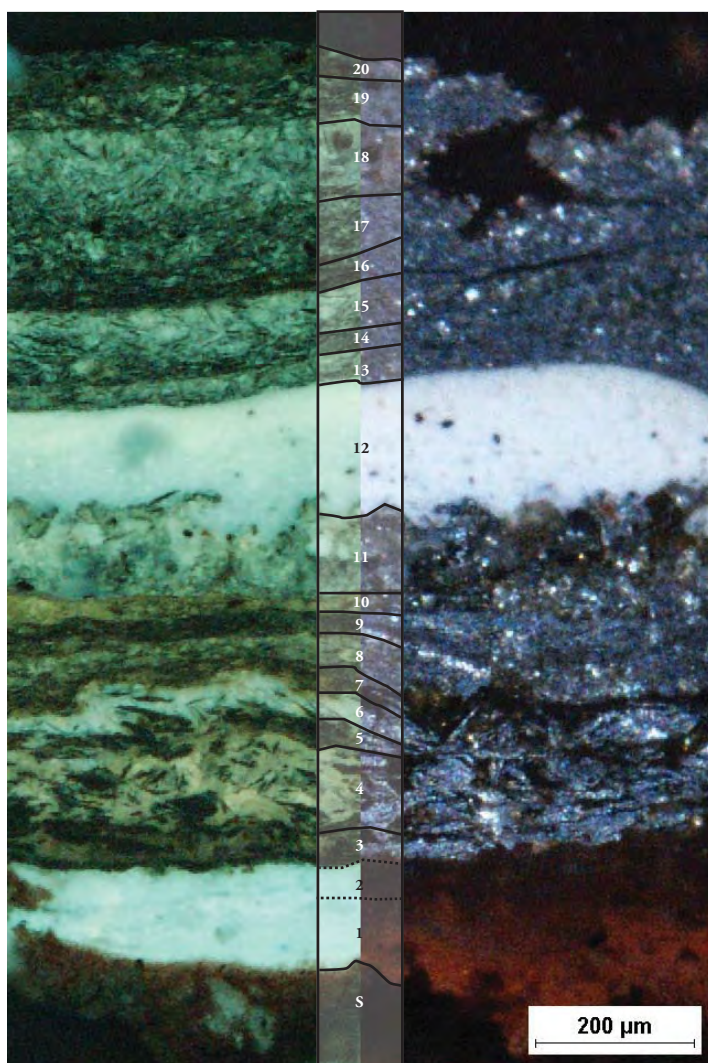
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :D: 1	Element: porch railing	Date Sampled: 02/12/11
Sample Location: middle		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

18	20	silver
17	19	silver
16	18	silver
15	17	silver
14	16	silver
13	15	silver
12	14	silver
11	13	silver
10	12	white
9	11	silver
8	10	silver
7	9	silver
6	8	silver
5	7	silver
4	6	silver
3	5	silver
2	4	silver
1	3	silver
	2	transparent gold
	1	brown red
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: silver

Munsell Color F1:

Probable Medium: oil

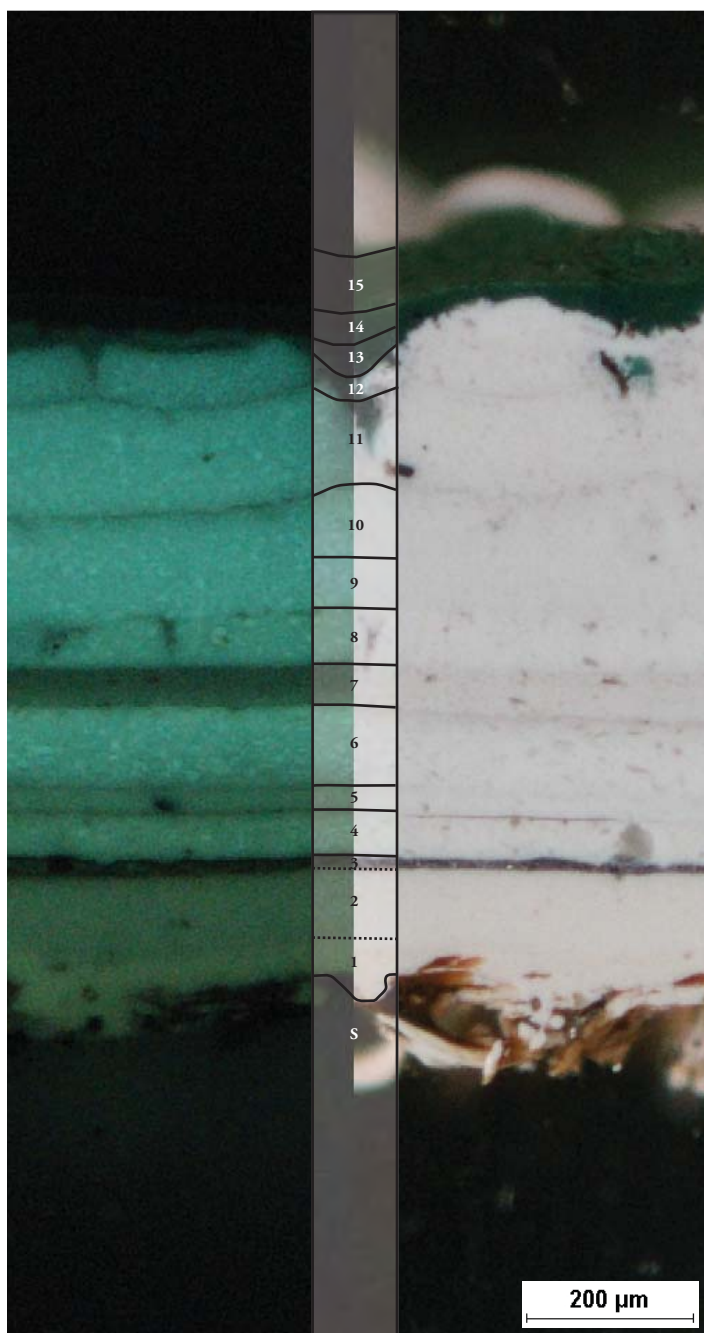
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :E: 1	Element: porch handrail	Date Sampled: 02/12/11
Sample Location: #3 from north		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

13	15	green
12	14	dark green
11	13	*off white
10	12	*off white
9	11	off white
8	10	*off white
7	9	off white
6	8	*off white
5	7	*tan
4	6	*off white
3	5	off white
2	4	/off white
1	3	silver
	2	cream
	1	cream
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: silver

Munsell Color F1:

Probable Medium: oil

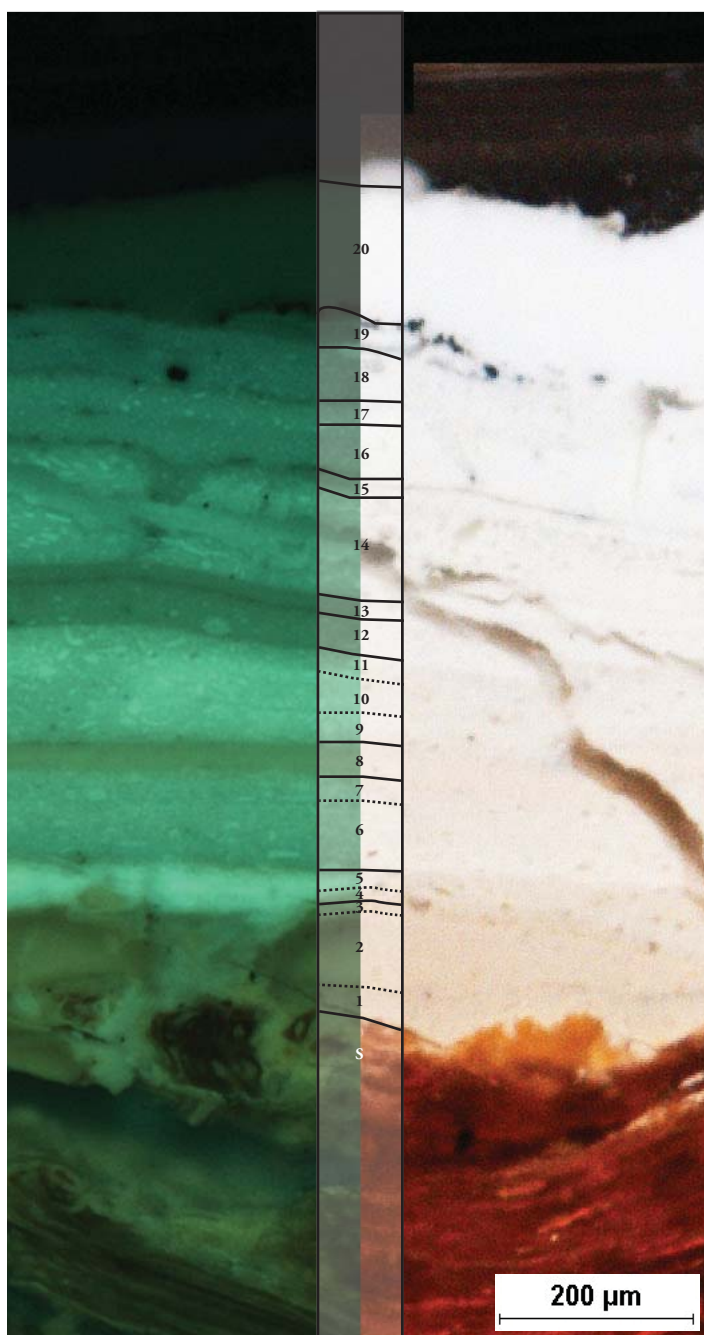
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :F: 5	Element: door	Date Sampled: 02/12/11
Sample Location: panel middle frame		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

14	20	white
13	19	/*white
12	18	white
11	17	white
10	16	white
9	15	/*white
8	14	off white
7	13	off white
6	12	off white
5	11	light tan
	10	light tan
	9	light tan
4	8	cream
3	7	off white
	6	off white
2	5	*tan cream
	4	off white
1	3	*off white
	2	light tan
	1	off white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 7.5Y 9/2

Probable Medium: oil

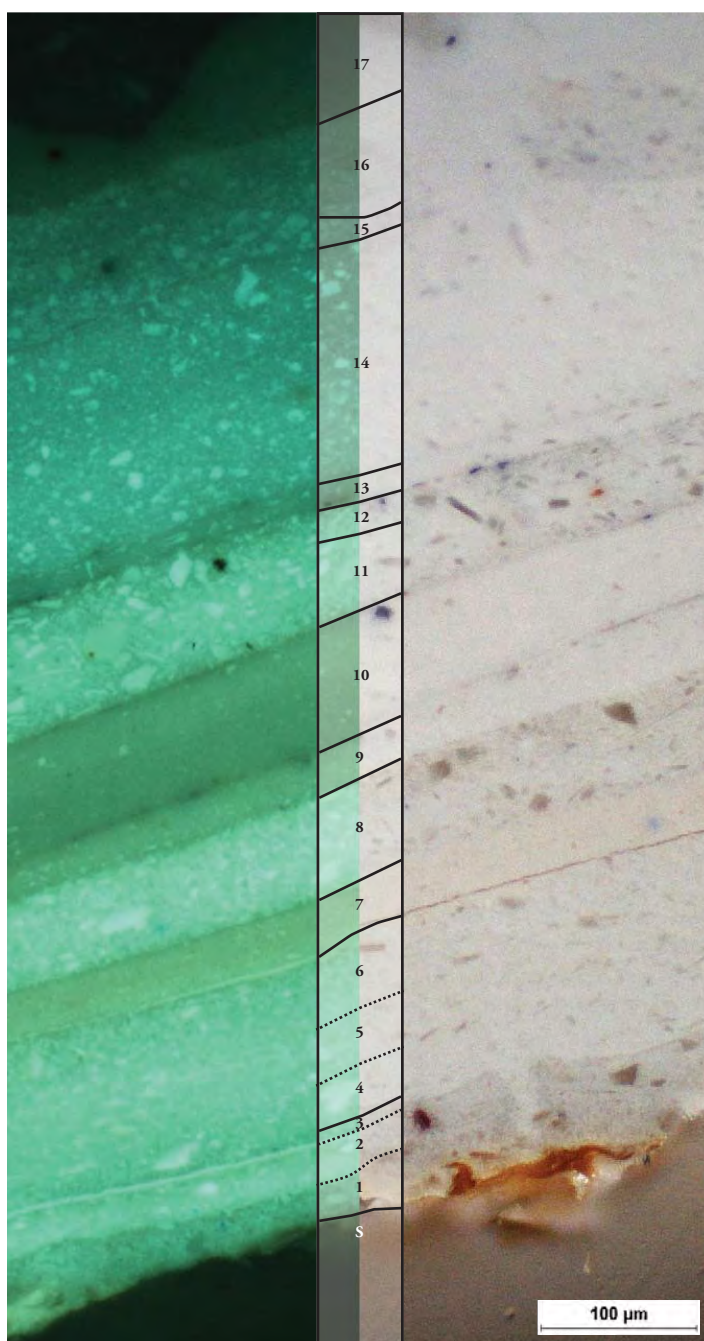
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :F: 7	Element: door	Date Sampled: 02/12/11
Sample Location: shutter		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

15	17	white
14	16	white
13	15	white
12	14	*white
11	13	*white
10	12	*white
9	11	*white
8	10	*white
7	9	*white
6	8	off white
5	7	cream
4	6	/light cream
3	5	off white
2	4	off white
1	3	off white
	2	light tan
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 7.5Y 9/2

Probable Medium: oil

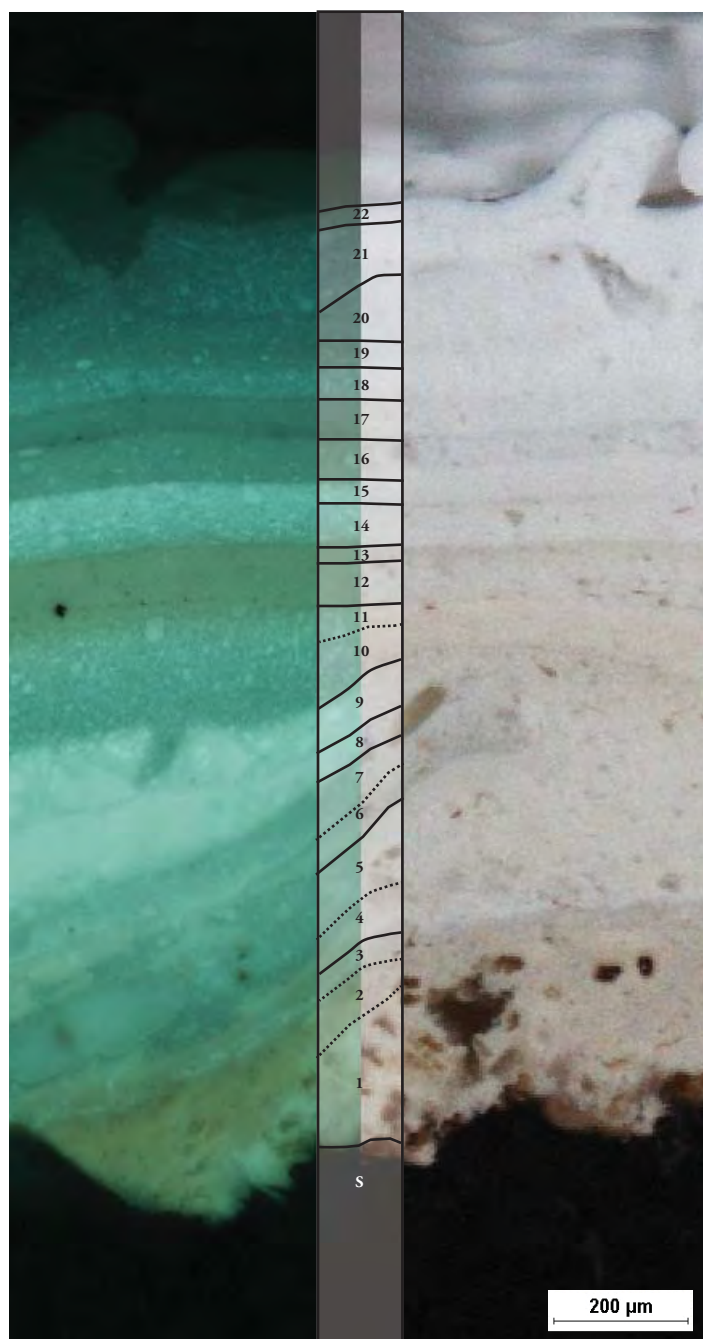
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :F: 3	Element: door	Date Sampled: 02/12/11
Sample Location: stile		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

17	22	white
16	21	*white
15	20	*white
14	19	white
13	18	white
12	17	off white
11	16	off white
10	15	off white
9	14	*off white
8	13	*tan
7	12	off white
6	11	cream
	10	cream
5	9	/tan
4	8	off white
3	7	off white
	6	off white
2	5	off white
	4	off white
	3	off white
1	2	tan
	1	cream
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 7.5y 9/2

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :G: 1	Element: door frame	Date Sampled: 02/12/11
Sample Location: south, left side top		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

18	25	off white
17	24	cream
16	23	/off white
	22	white
15	21	off white
14	20	off white
13	19	off white
12	18	off white
11	17	cream
10	16	off white
9	15	cream
8	14	off white
7	13	cream
6	12	off white
5	11	*white
	10	off white
4	9	white
	8	off white
3	7	white
	6	off white
2	5	white
	4	off white
1	3	/*off white
	2	white
	1	white
		substrate

/ : Fracture * : Dirt

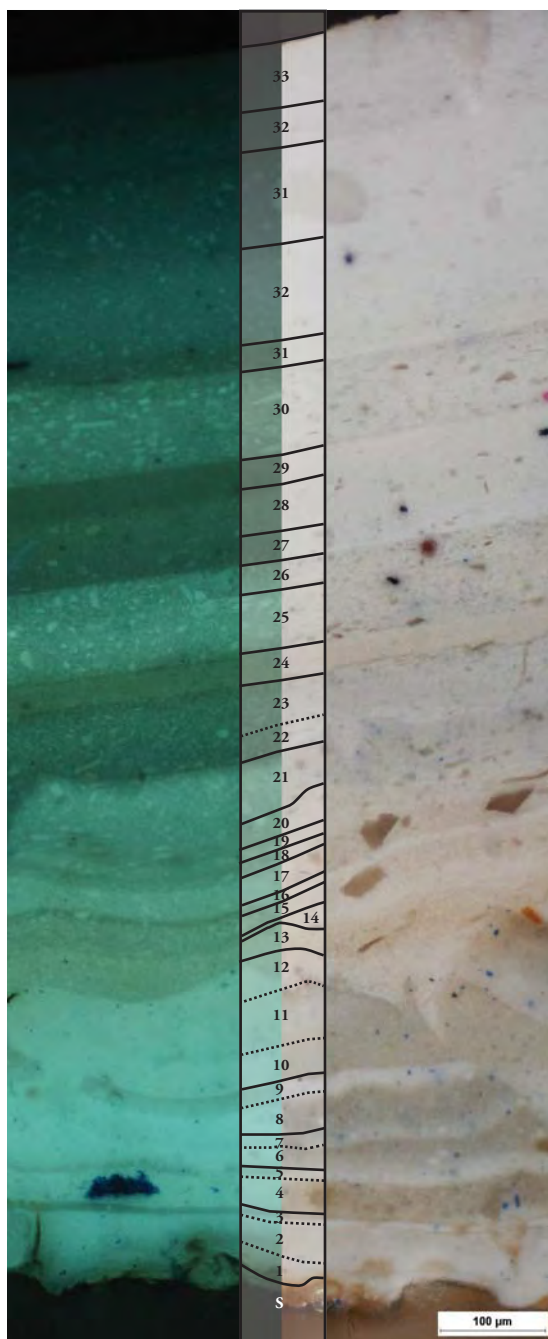
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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :G: 1	Element: door frame	Date Sampled: 02/12/11
Sample Location: south, left side top		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

26	33	white
25	32	white
24	31	white
23	30	*off white
22	29	white
21	28	white
20	27	white
19	26	off white

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 5Y 9/1

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :G: 4	Element: door frame	Date Sampled: 02/12/11
Sample Location: pediment, top		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

16	19	white
15	18	*pink cream
14	17	white
13	16	yellow cream
12	15	white
11	14	yellow cream
10	13	off white
9	12	pink cream
8	11	white
7	10	pink cream
6	9	*white
5	8	pink cream
4	7	*off white
	6	off white
3	5	*off white
2	4	*off white
	3	*white
1	2	white
	1	white
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: white

Munsell Color F1: 5Y 9/1

Probable Medium: oil

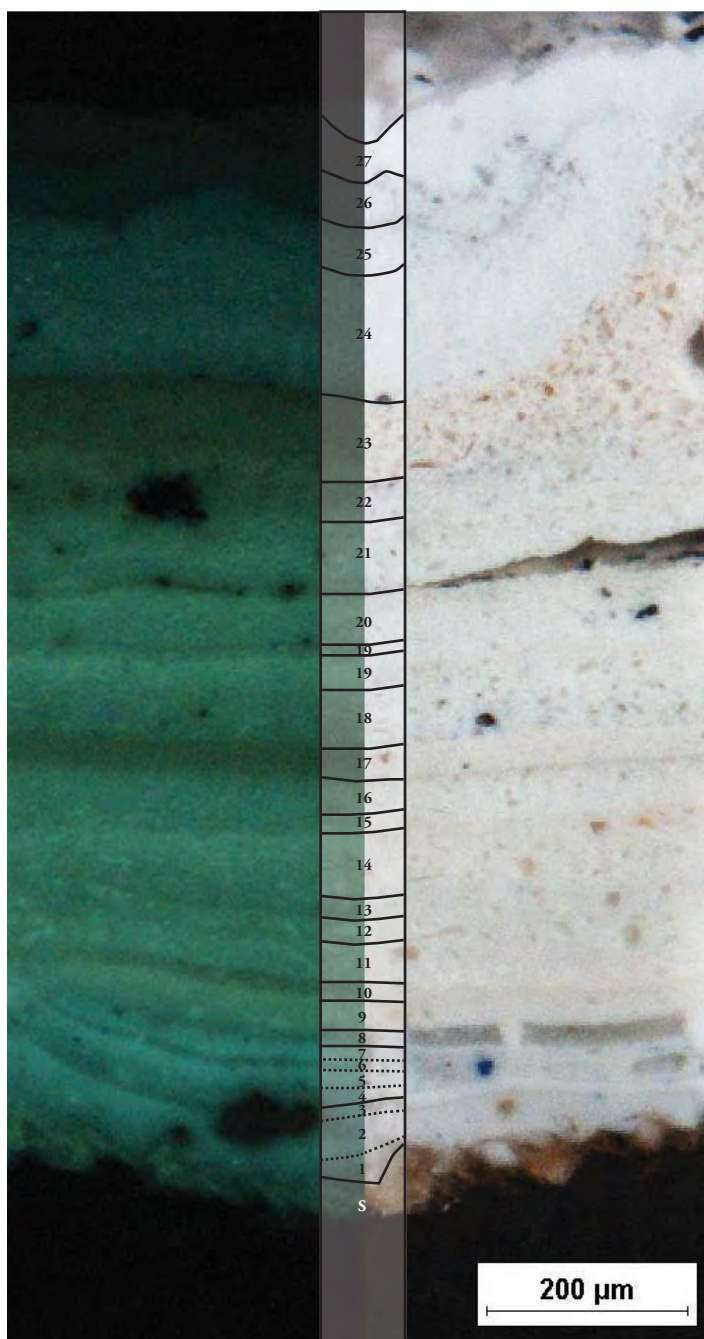
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :H: 4	Element: cornice/soffit	Date Sampled: 02/12/11
Sample Location: bottom of cornice		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

22	27	white
21	26	*white
20	25	*white
19	24	white
18	23	cream
17	22	off white
16	21	off white
15	20	/*off white
14	19	cream
13	18	off white
12	17	cream
11	16	*off white
10	15	off white
9	14	cream
8	13	off white
7	12	off white
6	11	off white
5	10	off white
4	9	cream
3	8	tan
2	7	white
	6	white
	5	white
	4	white
1	3	white
	2	white
	1	white
		substrate

Conclusions

/ : Fracture * : Dirt

Color: F1: white

Munsell Color F1: 5Y 9/1

Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
3 Ashford Street

Sample Number: 3 :L: 3	Element: ceiling	Date Sampled: 02/12/11
Sample Location: above south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

/ : Fracture * : Dirt

Scheme/Layer

Color

17	25	off white
16	24	off white
15	23	off white
14	22	off white
13	21	off white
12	20	cream
11	19	/*off white
10	18	tan
9	17	off white
8	16	off white
7	15	cream
6	14	cream
5	13	cream
6	12	tan
	11	white
5	10	*tan
	9	white
	8	white
4	7	white
2	6	off white
	5	white
2	4	off white
1	3	/white
	2	white
	1	white
		substrate

/ : Fracture * : Dirt

Continued onto the next page

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico

3 Ashford Street

Sample Number: 3 :L: 3	Element: ceiling	Date Sampled: 02/12/11
Sample Location: above south door		Date Analyzed: 04/06/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

23	31	white
22	30	white
21	29	white
20	28	/off white
19	27	/tan
18	26	off white

/ : Fracture *: Dirt

Conclusions

Color: F1: white

Munsell Color F1: 5Y 9/1

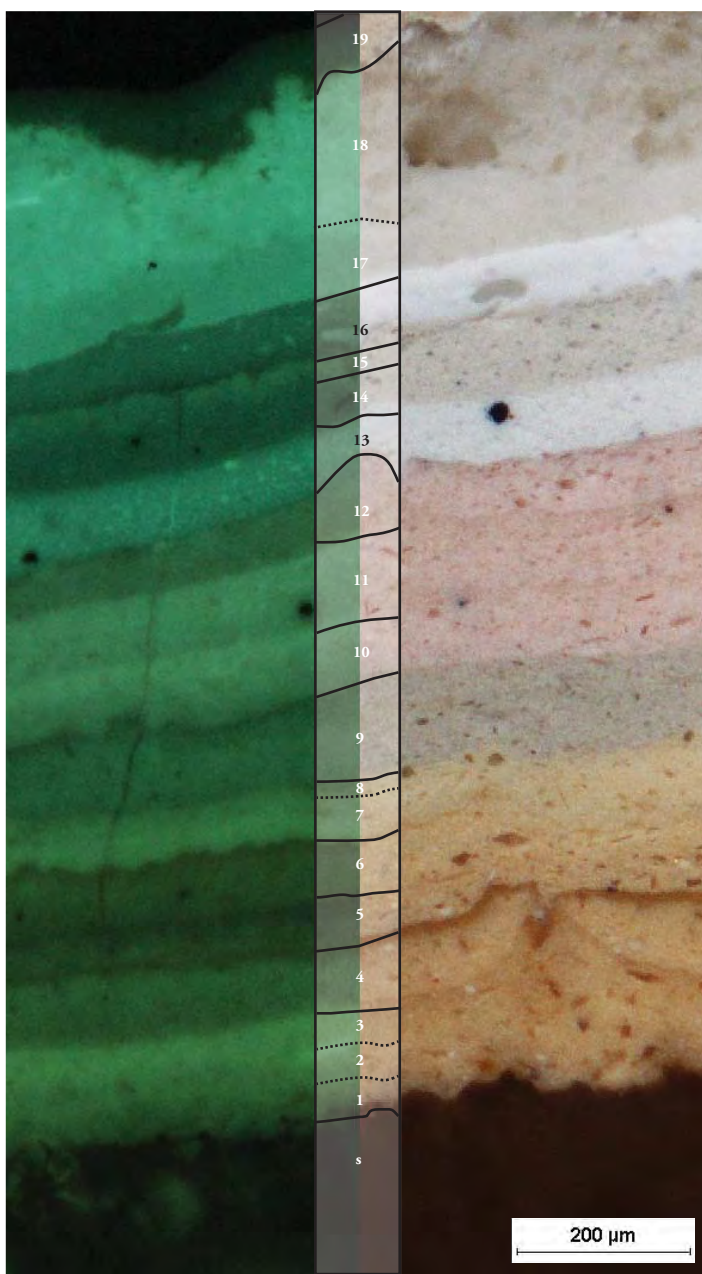
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :A: 1	Element: wall	Date Sampled: 02/13/11
Sample Location: siding adjacent to door		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

15	19	cream
6	18	off white
	17	off white
13	16	white
12	15	grey buff
11	14	grey buff
10	13	white cream
9	12	pink
8	11	pink
7	10	pink
6	9	lavender blue grey
	8	pale tan
5	7	pale tan
4	6	yellow tan
3	5	tan
2	4	\pink tan
1	3	pink tan
	2	pale tan
	1	pale tan
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: pale orange yellow- pale yellowish pink

Munsell Color F1: 10 YR 9/4 - 7.5YR 9/2

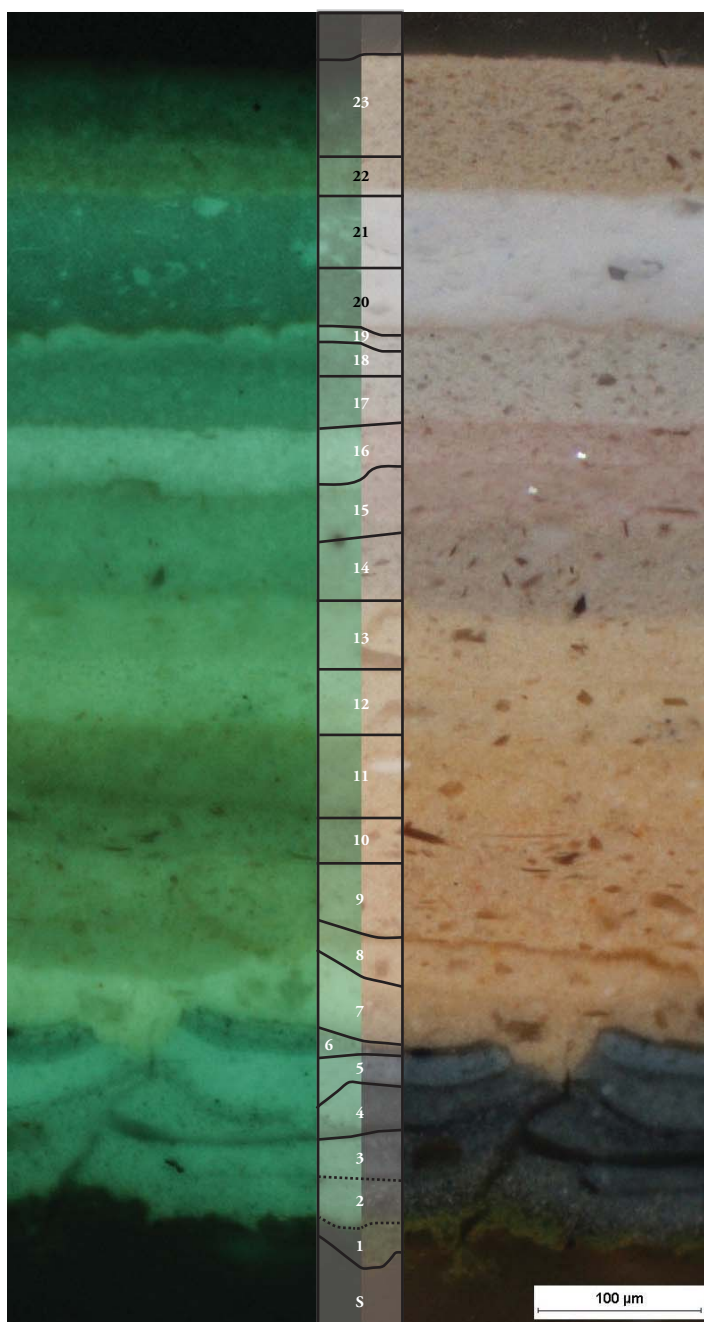
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :A: 2	Element: wall	Date Sampled: 02/13/11
Sample Location: siding at side elevation		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

21	23	cream
21	22	cream
19	21	off white
18	20	off white
17	19	/grey buff
16	18	grey buff
15	17	grey buff
14	16	pink
13	15	pink
12	14	lavender blue grey
11	13	pale tan
10	12	pale tan
9	11	yellow tan
8	10	tan
7	9	tan
6	8	tan
5	7	/pink tan
4	6	pale tan
3	5	*medium grey
2	4	*dark blue grey
1	3	/blue grey
	2	blue grey
	1	yellow green
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: dark greyish blue

Munsell Color F1:10B 5/2

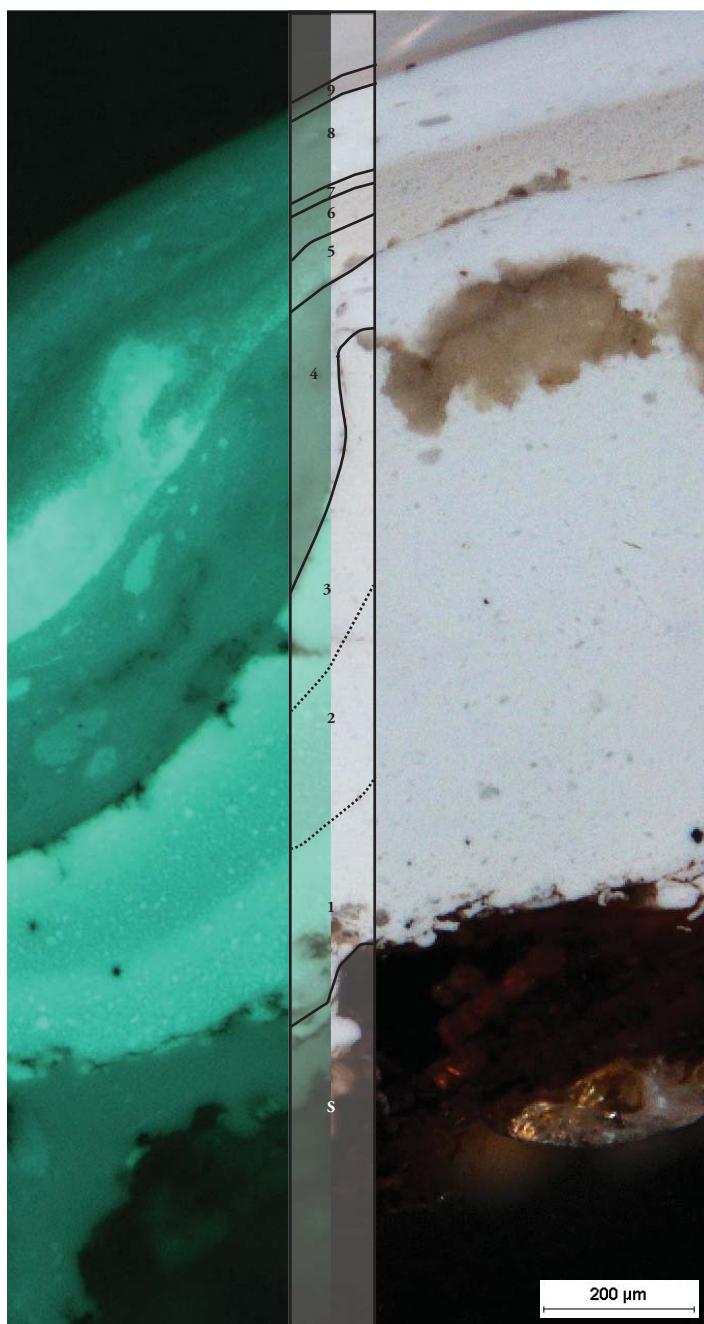
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :A: 4	Element: wall	Date Sampled: 02/13/11
Sample Location: cornerboard		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

7	9
6	8
5	7
4	6
3	5
2	4
1	3
	2
	1

off white
off white
cream
cream
*blue white
blue white
*off white
off white
off white
substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 5Y 9/1

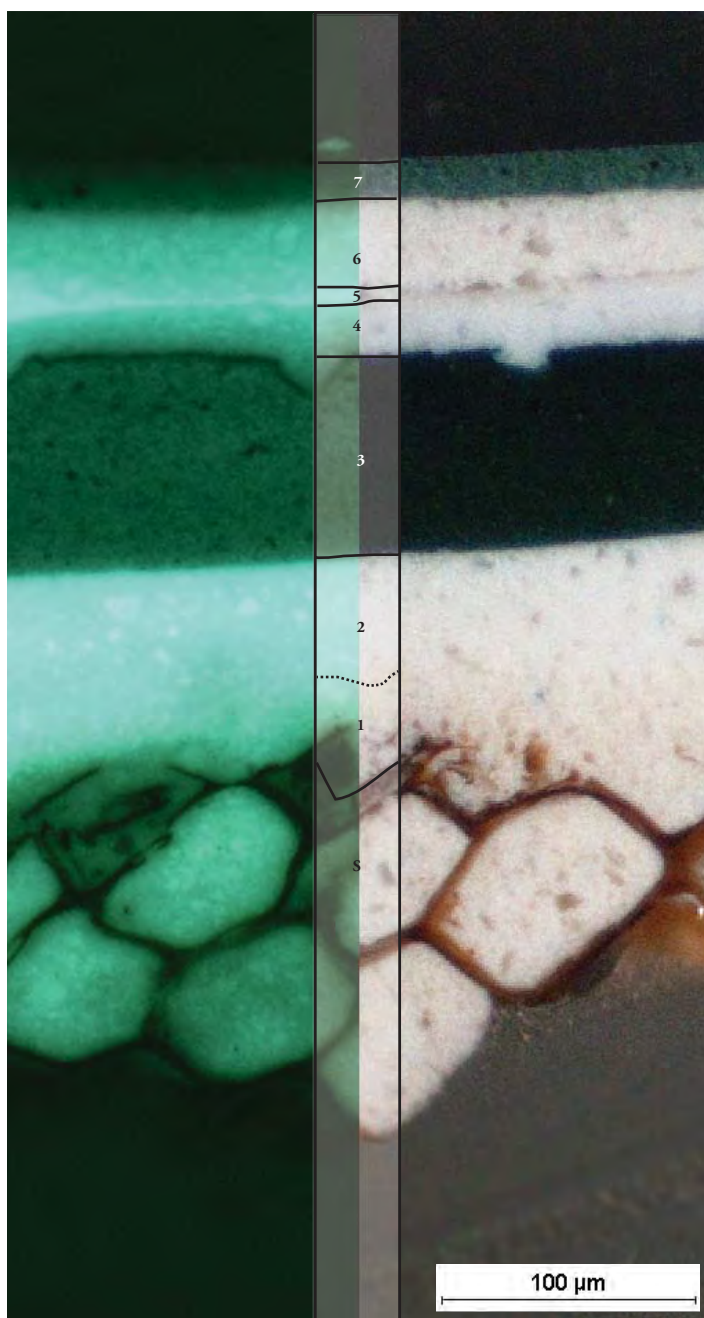
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :A: 6	Element: wall	Date Sampled: 02/13/11
Sample Location: baseboard		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

6	7
5	6
4	5
3	4
2	3
1	2
	1

green
cream
*blue white
dark green
dark green
off white
cream
substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: off white

Munsell Color F1: 5Y 9/1

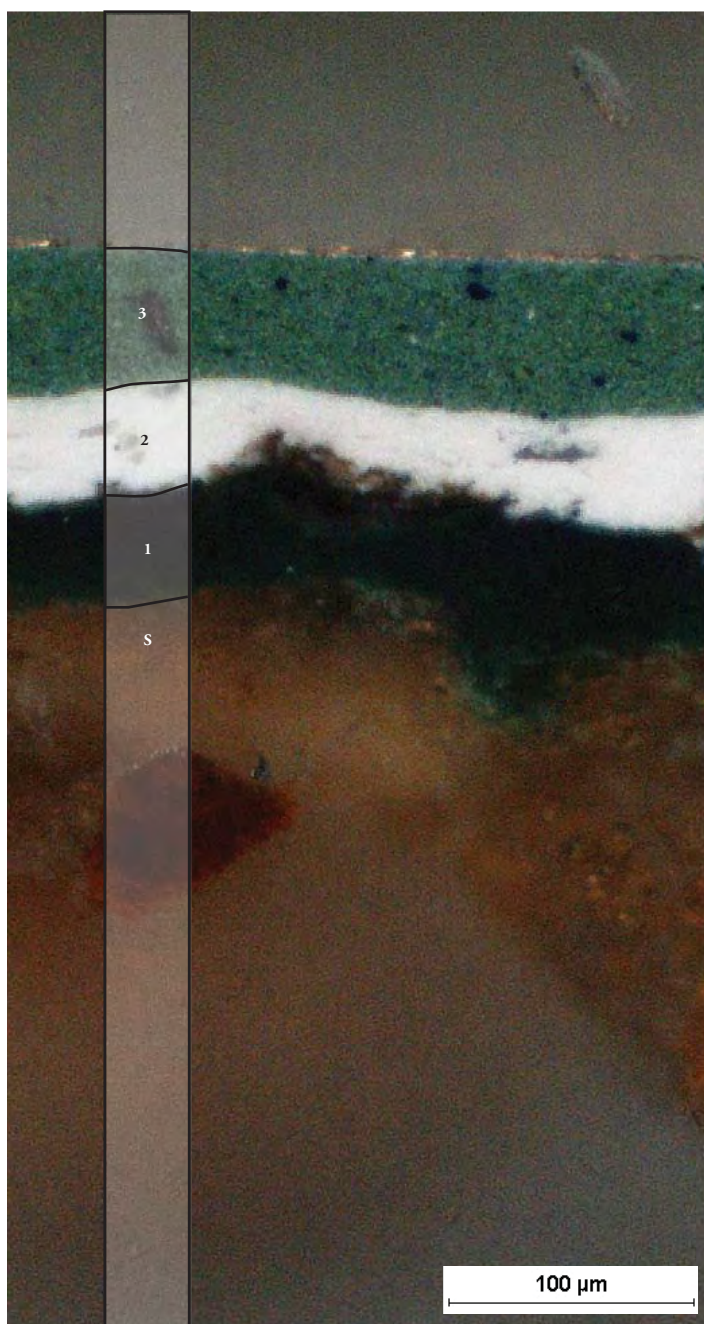
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :B: 1	Element: building base	Date Sampled: 02/13/11
Sample Location: far north		Date Analyzed: 03/25/11
Substrate: concrete	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

3	3
2	2
1	1

green

white

***dark green**

substrate

/ : Fracture *: Dirt

Conclusions

Color: F1: dark green

Munsell Color F1: 2.5 BG 2/6

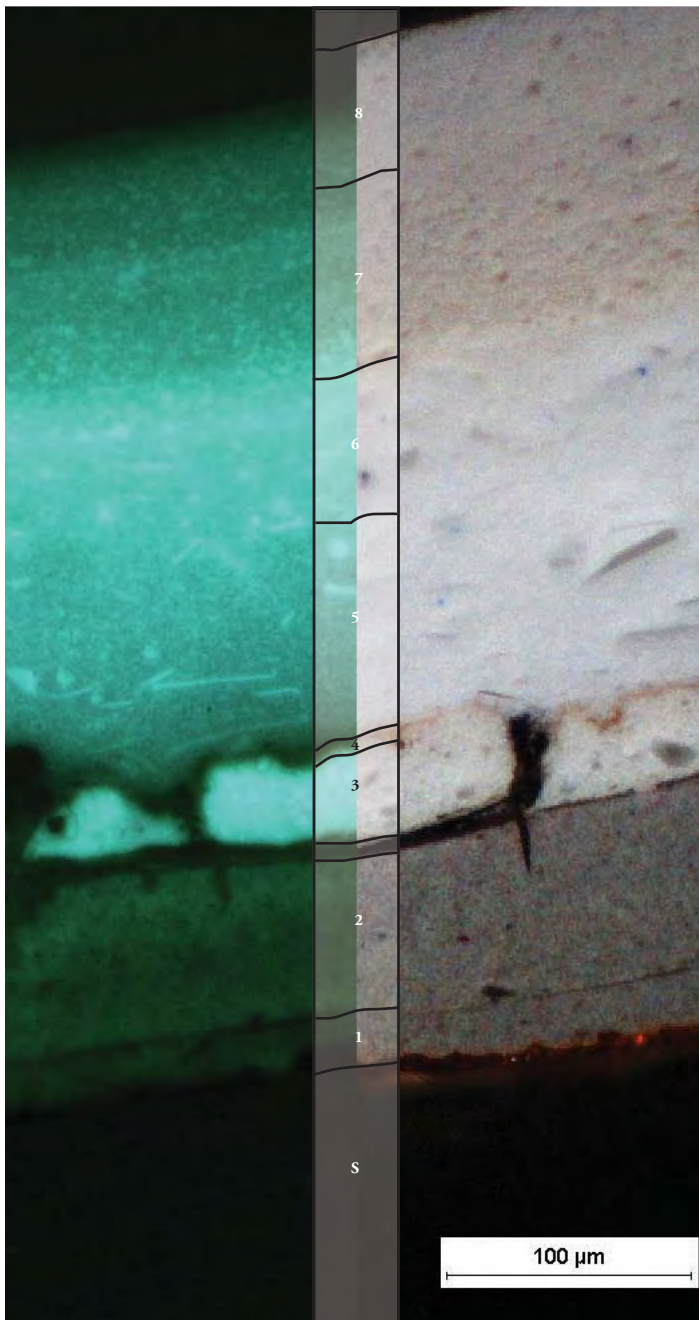
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :C: 1	Element: column	Date Sampled: 02/13/11
Sample Location: joint, 2nd to last from north side		Date Analyzed: 03/25/11
Substrate: galvanized metal	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

8	8	cream
7	7	cream
6	6	blue white
5	5	blue white
4	4	brown orange
3	3	*off white
2	2	/grey
1	1	/*grey
		substrate

*: Fracture /: Dirt

Conclusions

Color: F1: grey

Munsell Color F1: 5Y 6.5/1

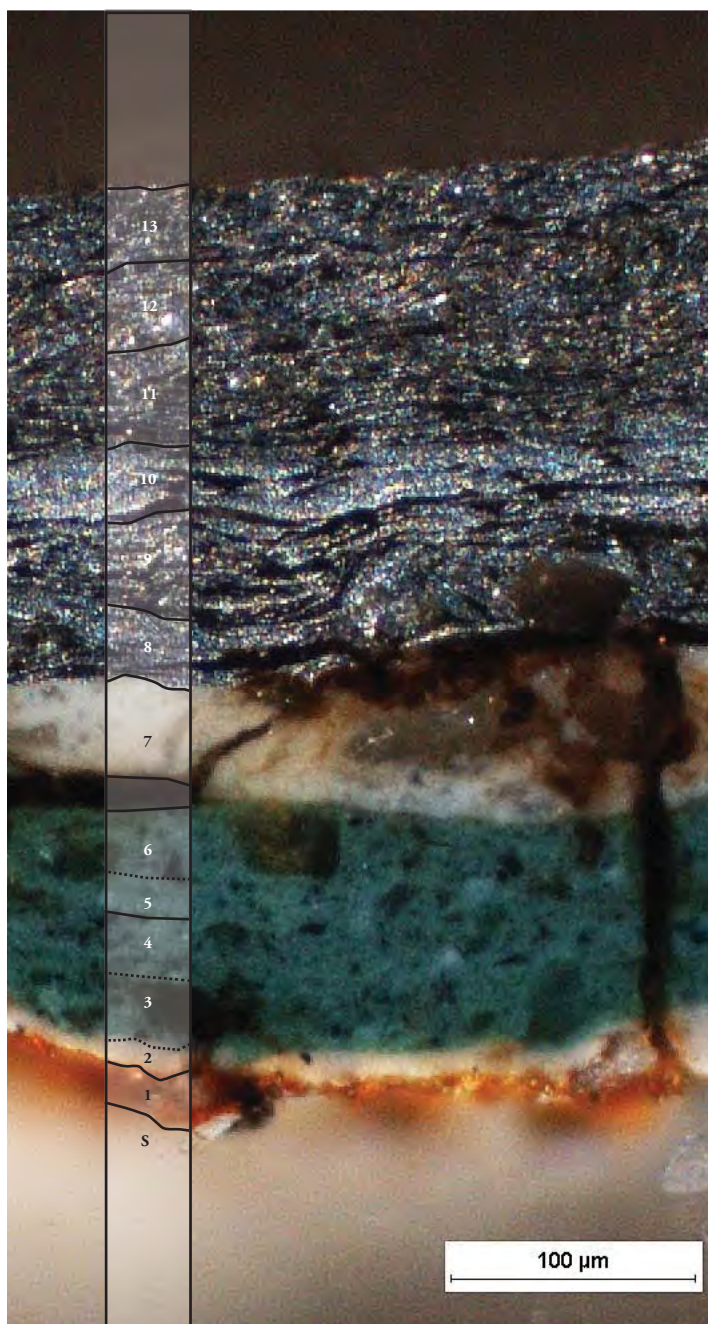
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :D: 2	Element: porch railing	Date Sampled: 02/13/11
Sample Location: middle		Date Analyzed: 03/25/11
Substrate: iron	Illumination: Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

10	13	silver
9	12	silver
8	11	silver
7	10	silver
6	9	silver
5	8	silver
4	7	/*blue white
3	6	/*green
2	5	green
1	4	*green
	3	green
	2	white
	1	orange brown primer
		substrate

* : Fracture / : Dirt

Conclusions

Color: F1: green

Munsell Color F1: 10G 4.5/6

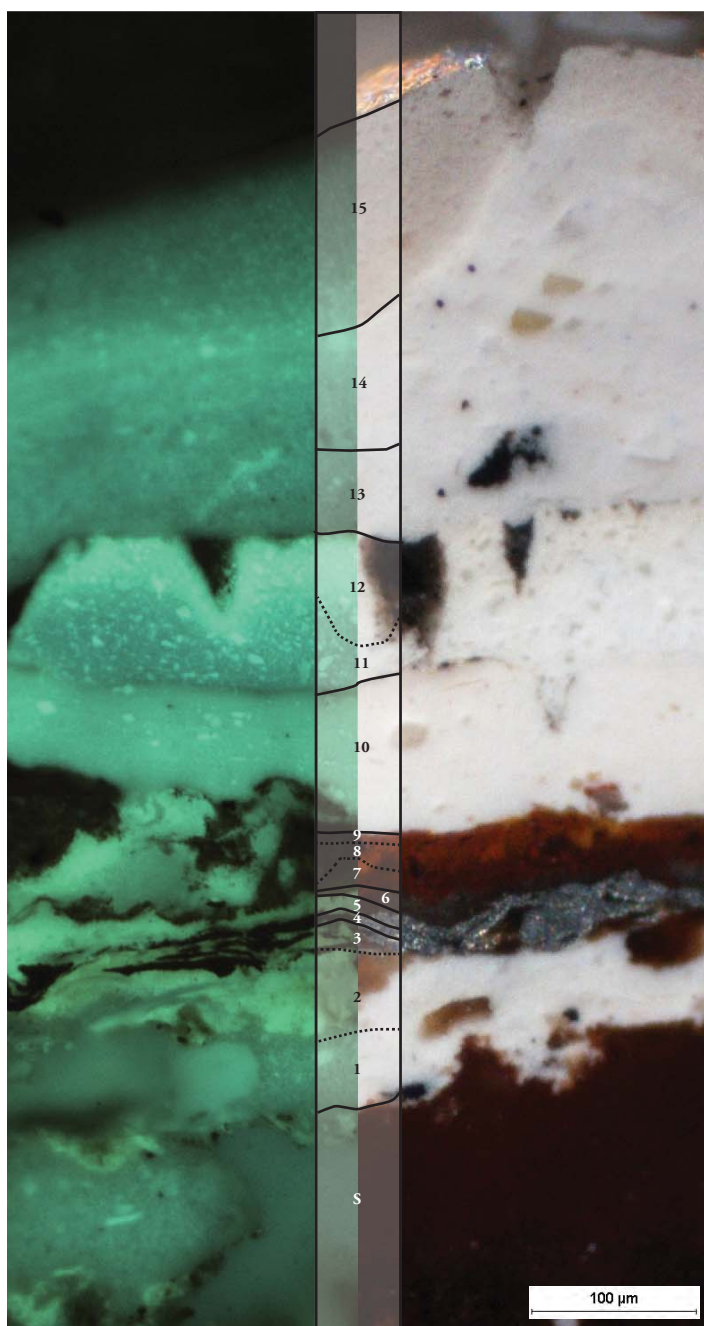
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :E: 1	Element: handrail	Date Sampled: 02/13/11
Sample Location: at door, first from left		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
10	15	*cream
9	14	white
8	13	white
7	12	*off white
	11	white
6	10	*off white
5	9	yellow brown
	8	orange red
	7	red brown
4	6	dark grey
3	5	silver
2	4	silver
1	3	silver
	2	white
	1	white
		substrate

* : Fracture / : Dirt

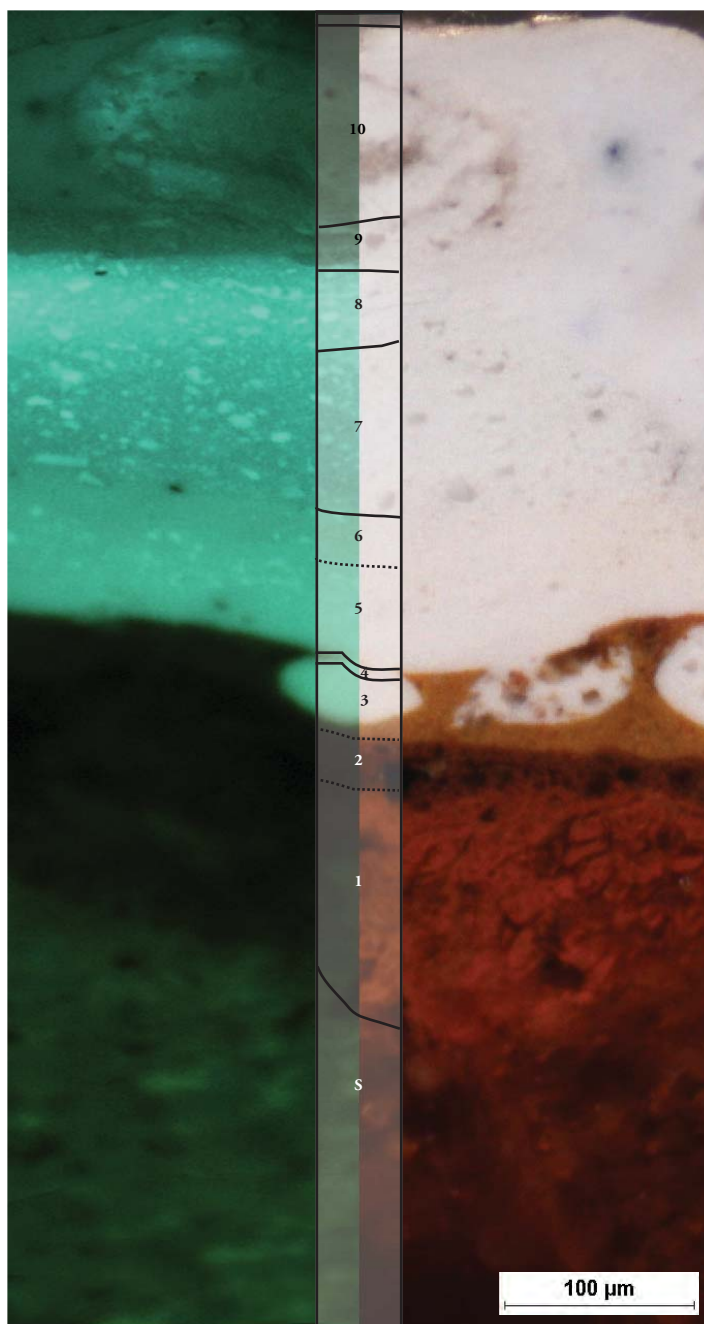
Conclusions

Color: F1: silver
Munsell Color F1:
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :F: 5	Element: door	Date Sampled: 02/13/11
Sample Location: 2nd from north, bottom panel lft side		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

7	10	pink white
6	9	pink white
5	8	white
4	7	yellow white
3	6	pink white
2	5	pink white
1	4	brown orange
	3	yellow brown
	2	brown
	1	rust red
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: Graining

Munsell Color F1 : rust red- 10R 3/9
brown- 10R 2.5/4, brown yellow-10YR 5/10

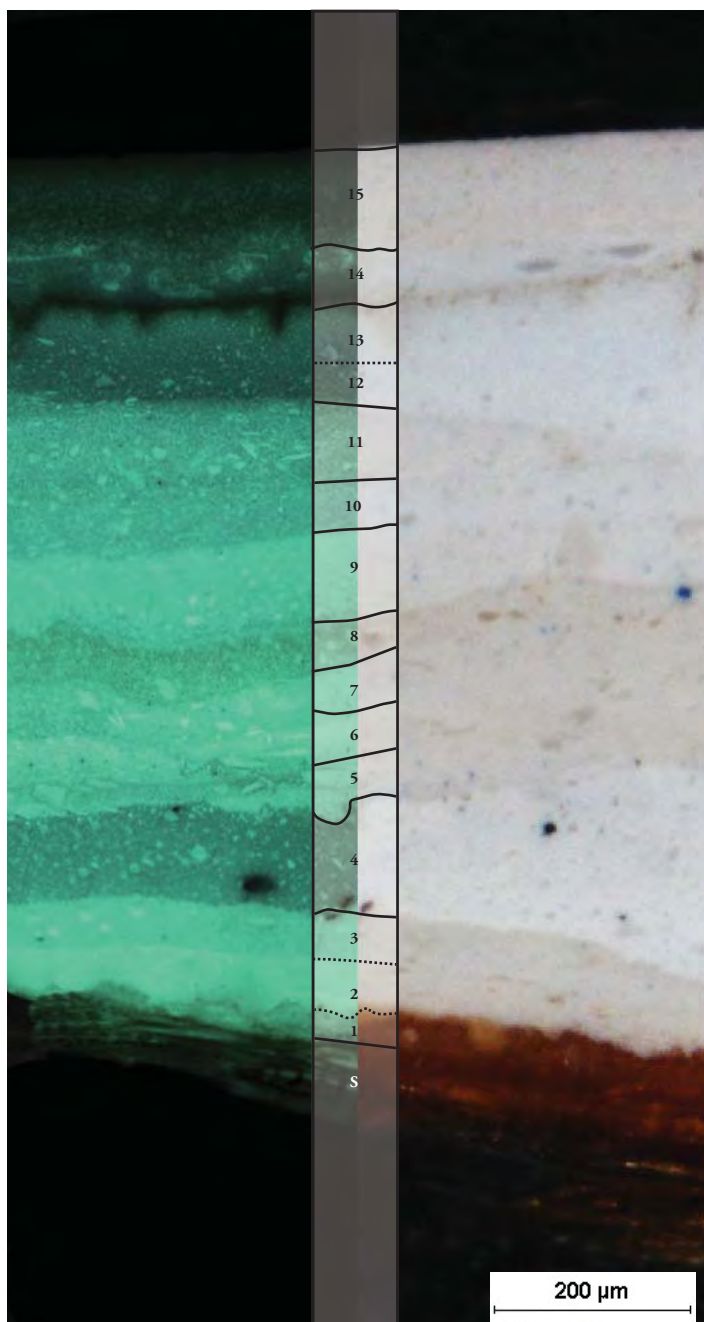
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :G: 6	Element: door frame	Date Sampled: 02/13/11
Sample Location: 3rd door from south		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 4x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
12	15	off white
11	14	white
10	13	*white
	12	white
9	11	off white
8	10	off white
7	9	blue white
6	8	blue white
5	7	blue white
4	6	blue white
3	5	blue white
2	4	blue white
1	3	off white
	2	off white
	1	brown orange
		substrate

/ : Fracture * : Dirt

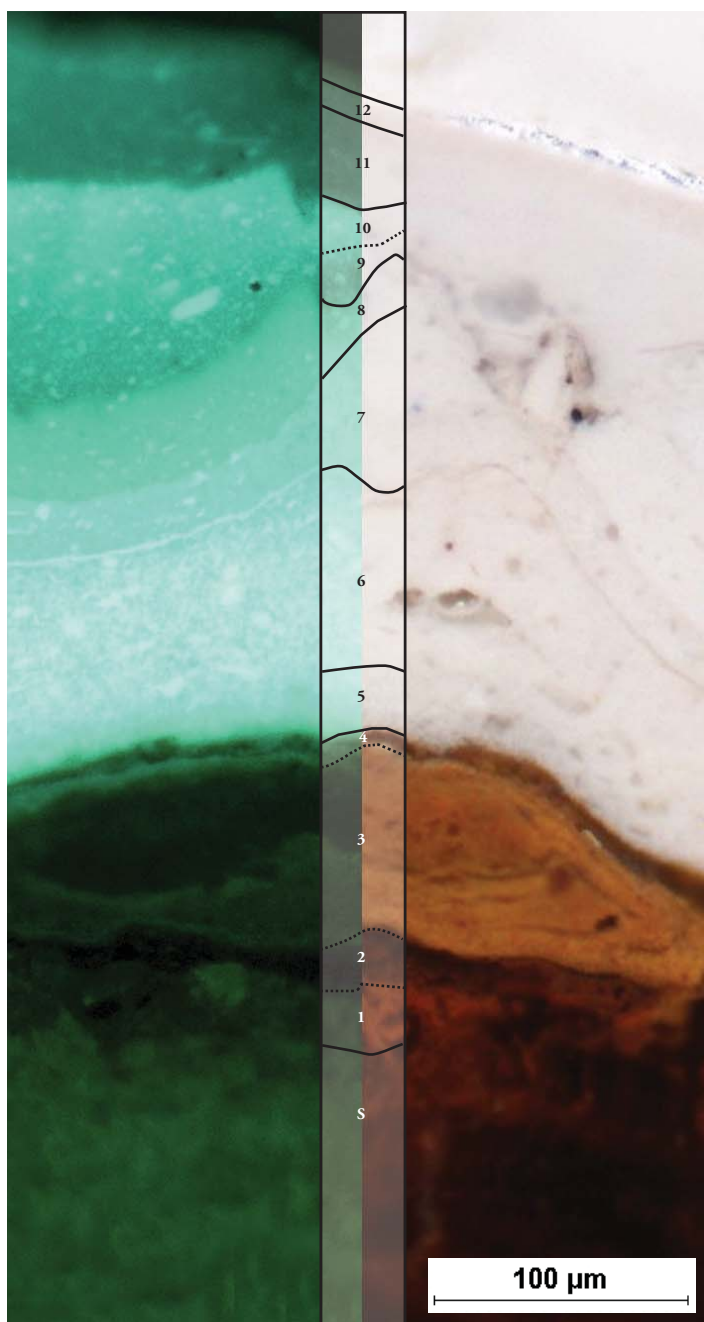
Conclusions

Color: F1: off white
Munsell Color F1: 5Y 9/1
Probable Medium: oil
Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :K: 1	Element: door shutter/louver	Date Sampled: 02/13/11
Sample Location: 2nd door from north		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
8	12	pink white
7	11	off white
6	10	yellow white
	9	/*pink white
5	8	pink white
4	7	pink white
3	6	pink white
2	5	off white
1	4	/brown orange
	3	brown yellow
	2	brown
	1	rust red
		substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: Graining

Munsell Color F1 : rust red- 10R 3/9
brown- 10R 2.5/4, brown yellow-10YR 5/10

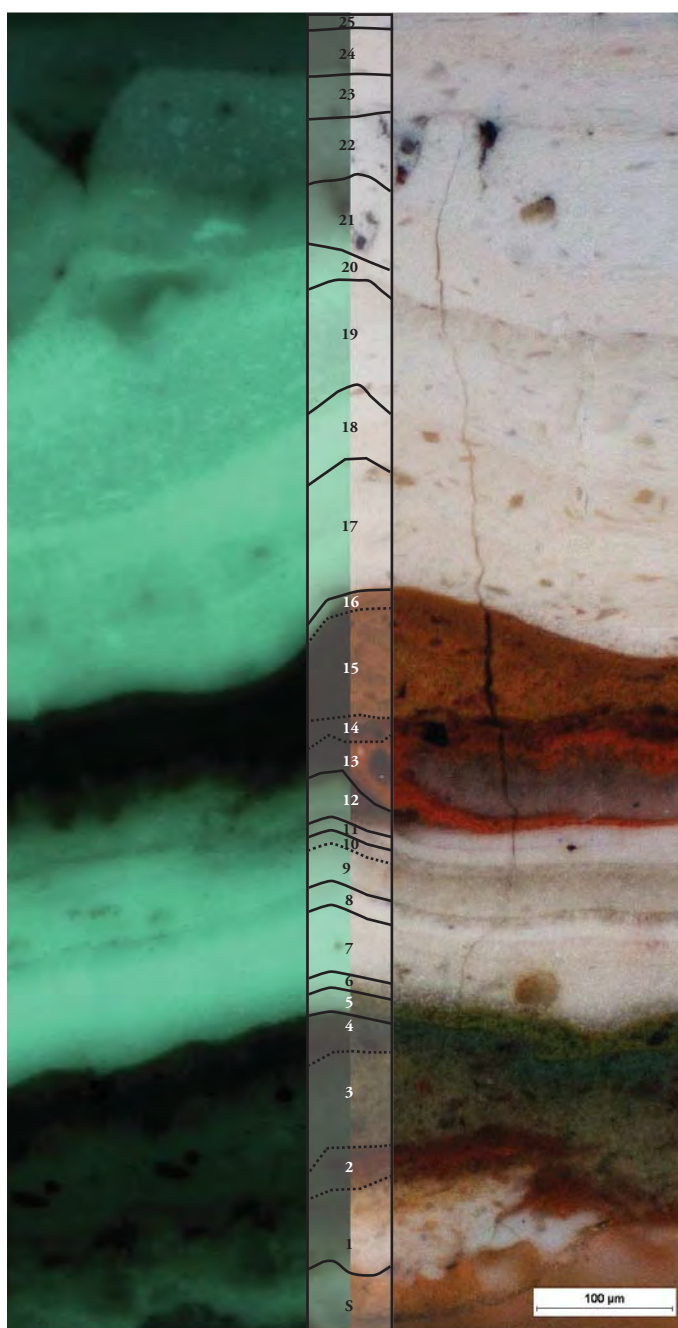
Probable Medium: oil

Comments: not for color matching

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :K: 3	Element: window shutter louvers	Date Sampled: 02/13/11
Sample Location: side elevation		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer Color

21	25	white
20	24	white
19	23	white
18	22	white
17	21	white
16	20	* white
15	19	white
14	18	white
13	17	orange brown
9	16	yellow brown
	15	brown
	14	rust red
	13	/ white
8	12	white
7	11	white
	10	white
6	9	white
5	8	white
4	7	white
3	6	/yellow green
2	5	green
1	4	green grey
	3	rust red
	2	white primer
	1	substrate

/ : Fracture * : Dirt

Conclusions

Color: F1: green , possibly red

Munsell Color F1: 2.5G 3.5/10, 10R 3/9

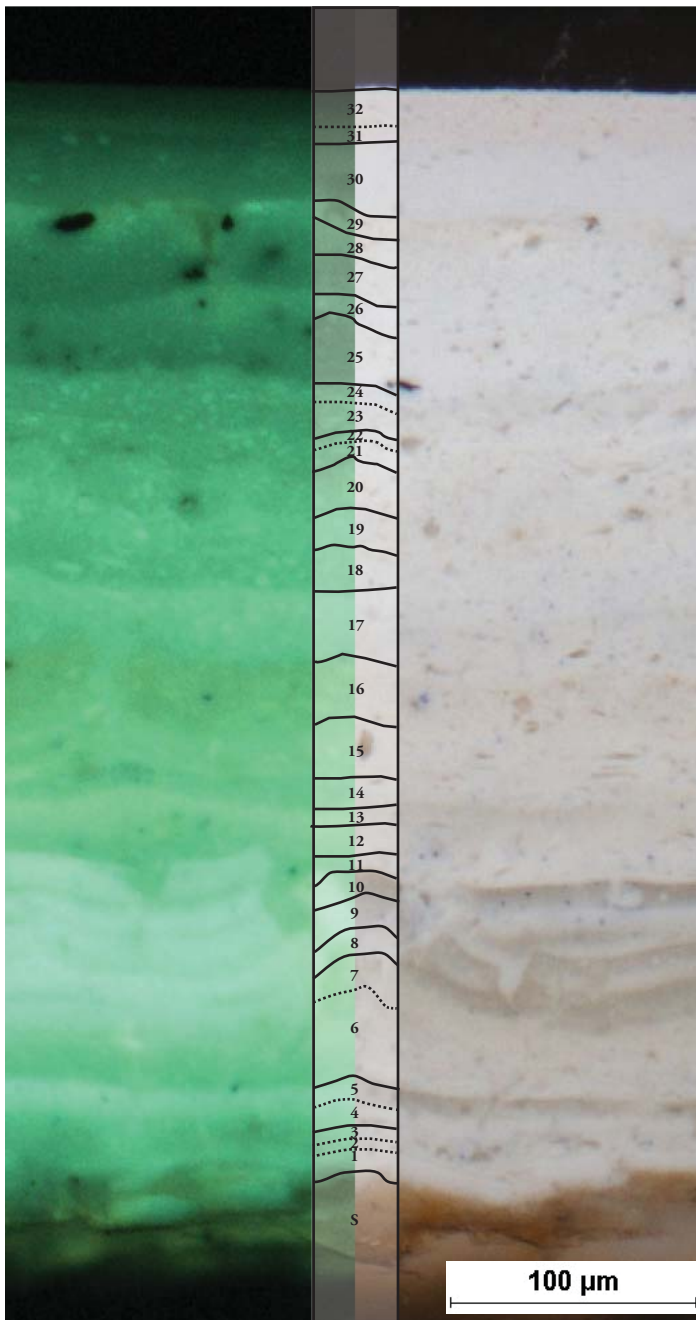
Probable Medium: oil

Comments: not for color matching
stratigraphy of side elevation doors and
window shutter/louvers

GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :H: 2	Element: cornice/soffit	Date Sampled: 02/13/11
Sample Location: cornice, middle flat section		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer		Color
19	25	light cream
18	24	light tan
	23	off white
17	22	off white
	21	off white
16	20	off white
15	19	light cream
14	18	off white
13	17	off white
12	16	cream
11	15	off white
10	14	off white
9	13	light tan
8	12	light tan
7	11	off white
6	10	*blue white
5	9	white
4	8	off white
3	7	light cream
	6	off white
2	5	*off white
	4	off white
1	3	off white
	2	white
	1	white
		substrate

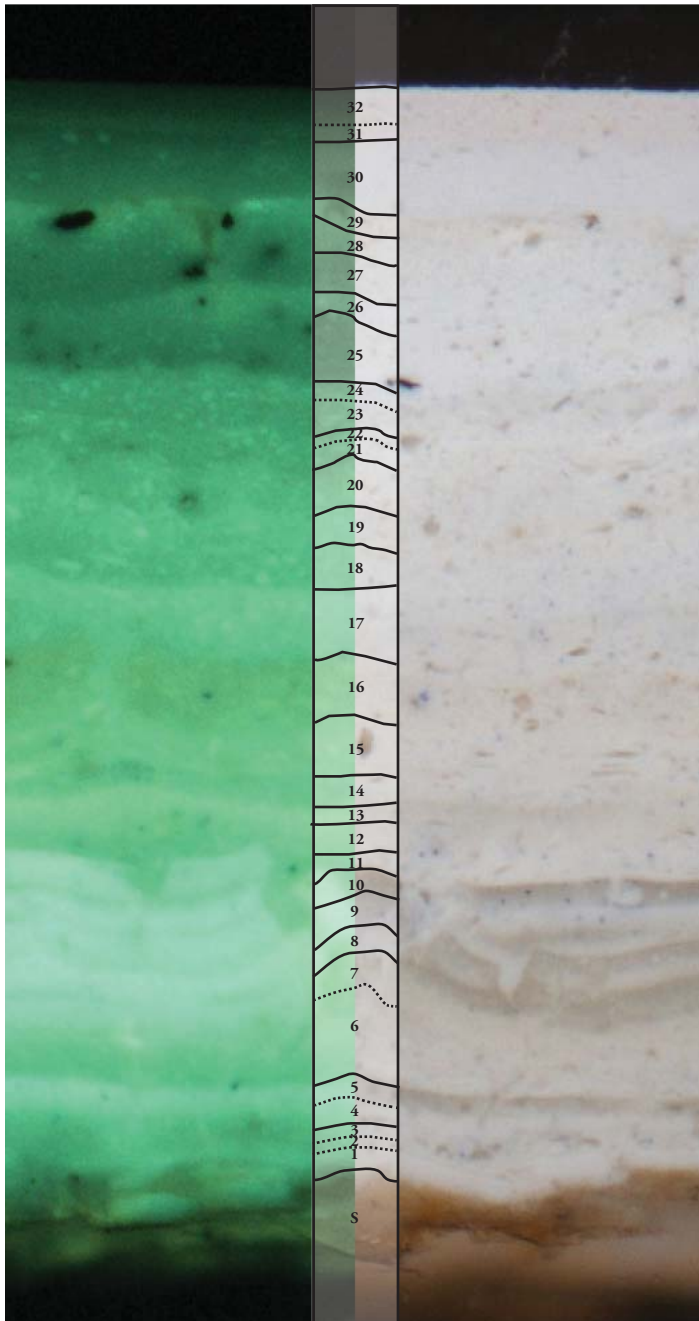
/ : Fracture * : Dirt

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GUAYAMA HISTORIC PAINT STUDY

Guayama, Puerto Rico
48 N. Santiago Palmer Street

Sample Number: 48 :H: 2	Element: cornice/soffit	Date Sampled: 02/13/11
Sample Location: cornice, middle flat section		Date Analyzed: 03/25/11
Substrate: wood	Illumination: Fluorescence BV 1A, Reflected/Quartz Halogen	
Microscope: Nikon ALPHAPHOT2-YS2		Objective: 10x
Analysis Performed by: Betty Prime		Camera: Nikon DS-Fi1



Stratigraphy

Scheme/Layer

Color

26	32
25	31
24	30
23	29
22	28
21	27
20	26

cream
off white
off white
/cream
light cream
off white
off white
/: Fracture *: Dirt

Conclusions

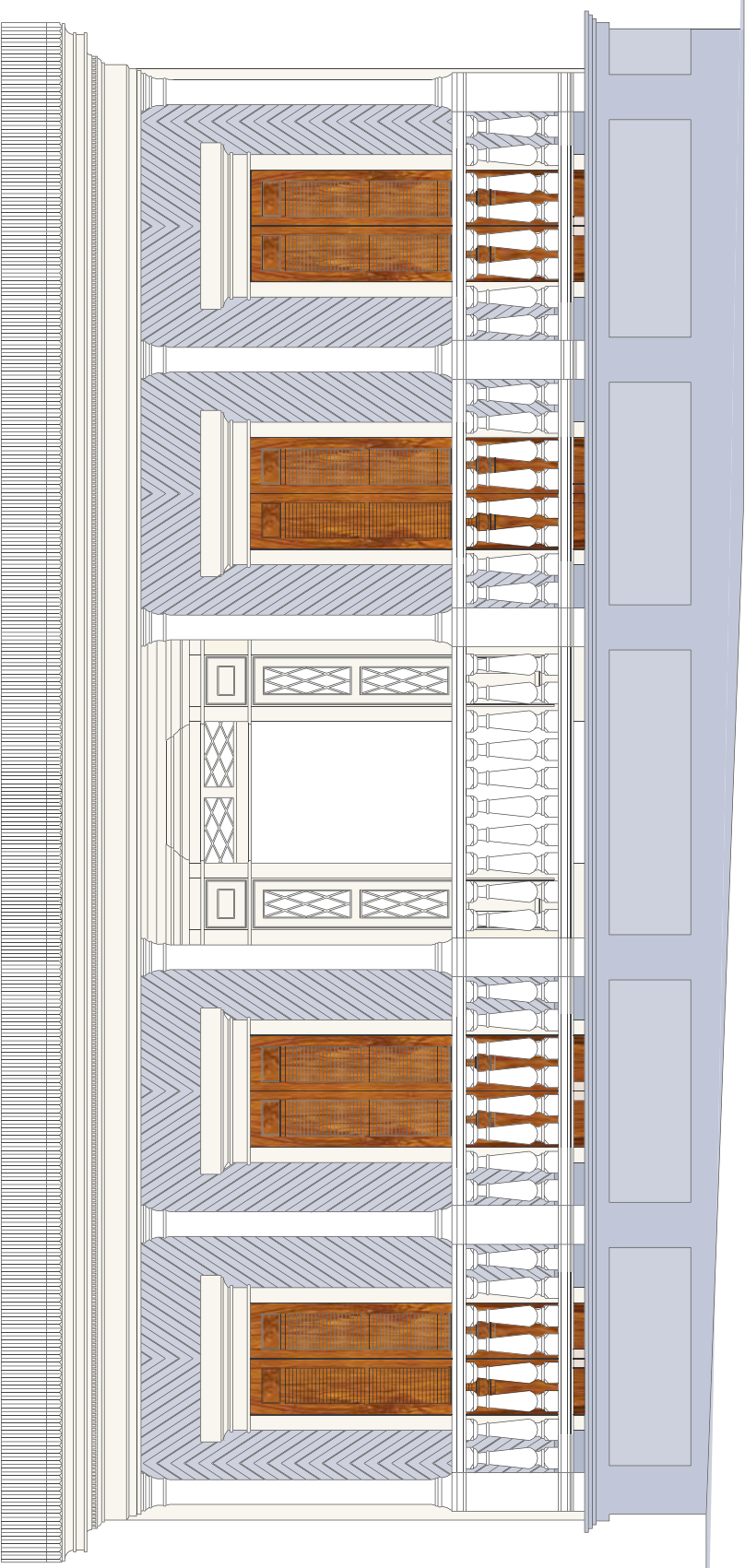
Color: F1: off white
Munsell Color F1: 5Y 9/1
Probable Medium: oil
Comments: not for color matching

APPENDIX G: COLOR MATRIX & DIGITAL RECONSTRUCTIONS OF
ORIGINAL COLOR SCHEMES

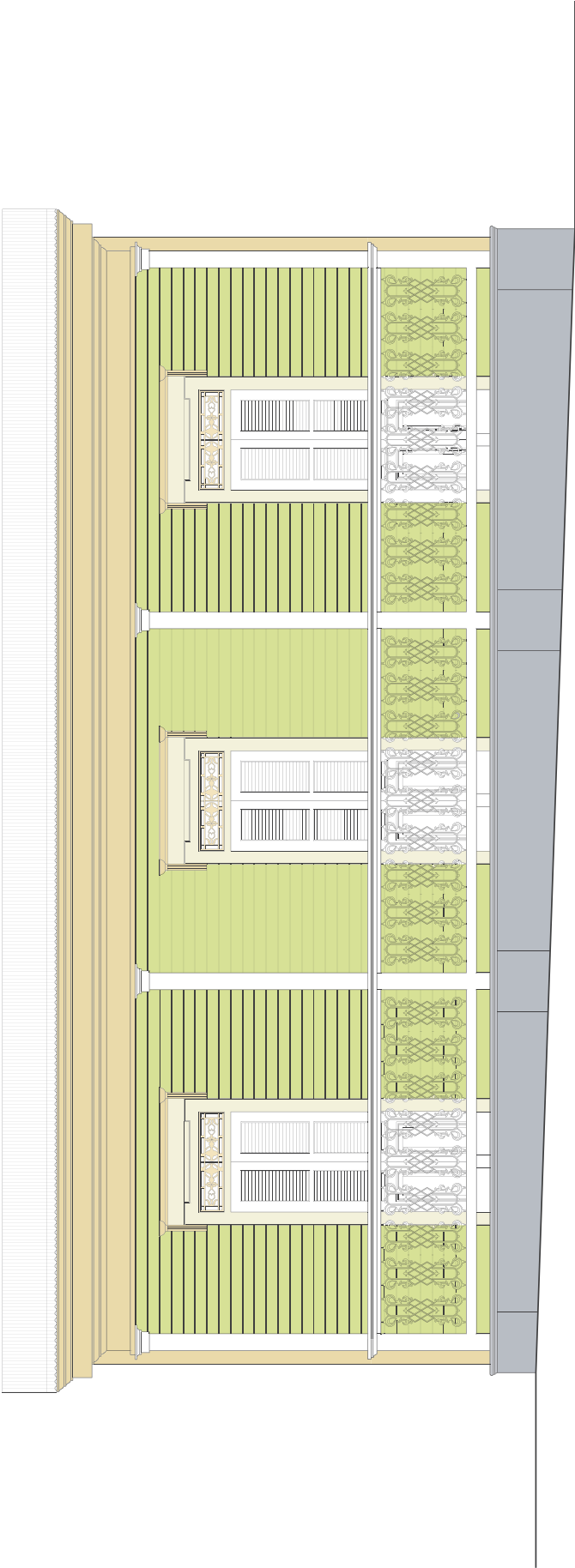
900 ORIGINAL COLOR PALETTE]

walls	base	columns	handrails	railing	door	trim	door & window frames	ceiling
 10B 7/1	 7.5B 7/2 5B 7/1	element not original	element not original	element not original	 graining (exact color unknown)	10Y 9/1.5	10Y 9/1.5	element not accessible
 2.5GY 7/6	 5 PB 7/1	element not original	element not original	element not original	element not original	2.5Y 8.5/6 - 2.5Y 8.5/4	10Y 9/2	10Y 9/2
 10B 9/2	 10B 5/2	 imitation patinated bronze 5G 2/6	 silver	 silver	 7.5Y 9/2	5Y 9/1	5Y 9/1	5Y 9/1
 5Y 9/1	 10B 3.5/1	10Y 9/1	10Y 9/1	7.5YR 9/4 - 10YR 9/4	7.5YR 9/4 - 10YR 9/4	10Y 9/1	10Y 9/1	10Y 9/1
 10B 5/2	element not original	element not original	 silver	element not original	 2.5G 3.5/10 or 10R 3/9	5Y 9/1	5Y 9/1	5Y 9/1

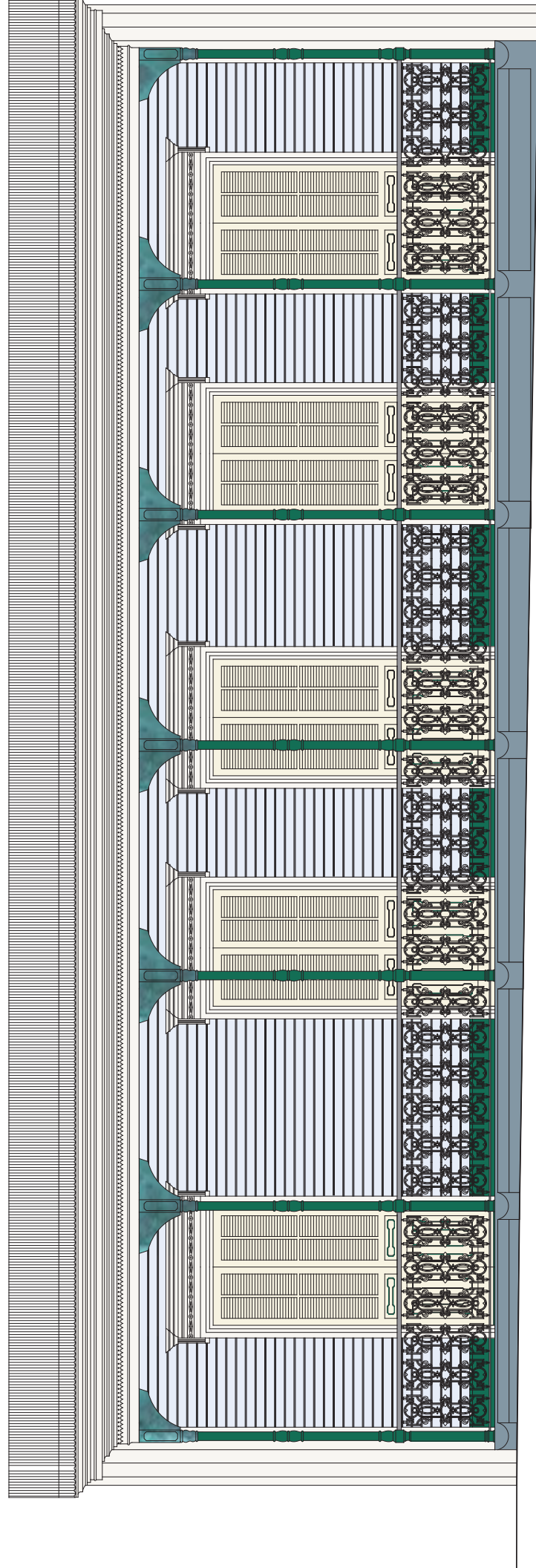
Reproduction of Original Paint Palette]



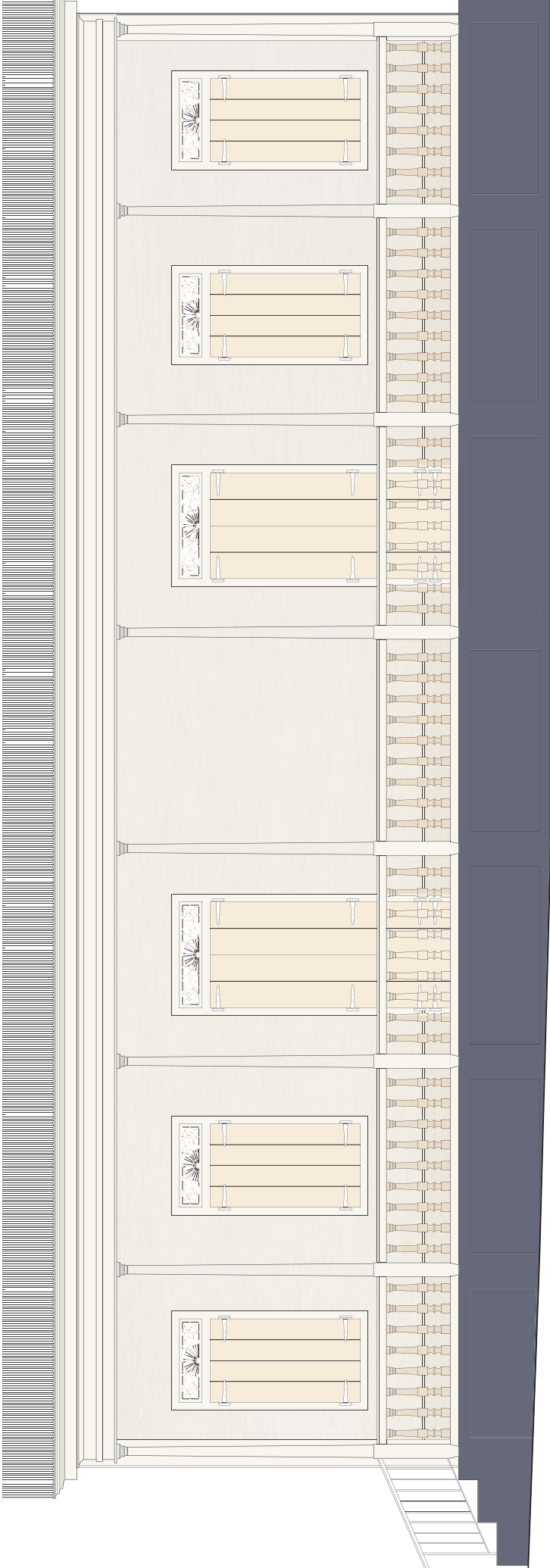
Reproduction of Original Paint Palette]



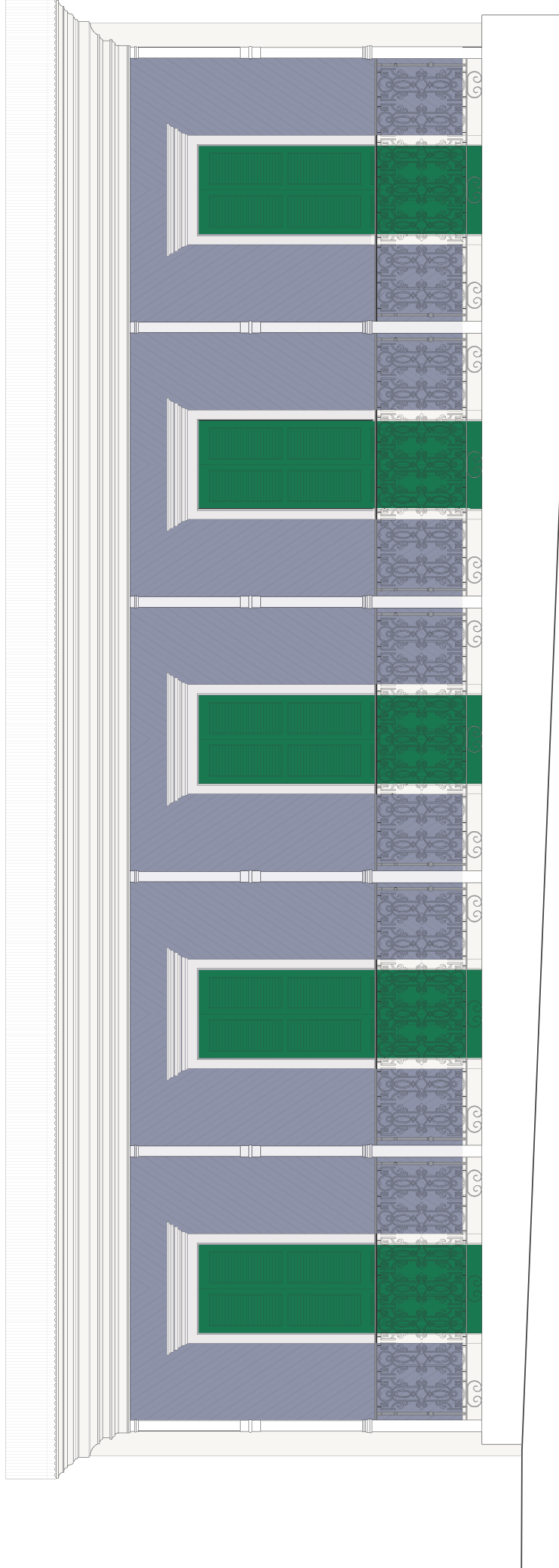
Reproduction of Original Paint Palette]



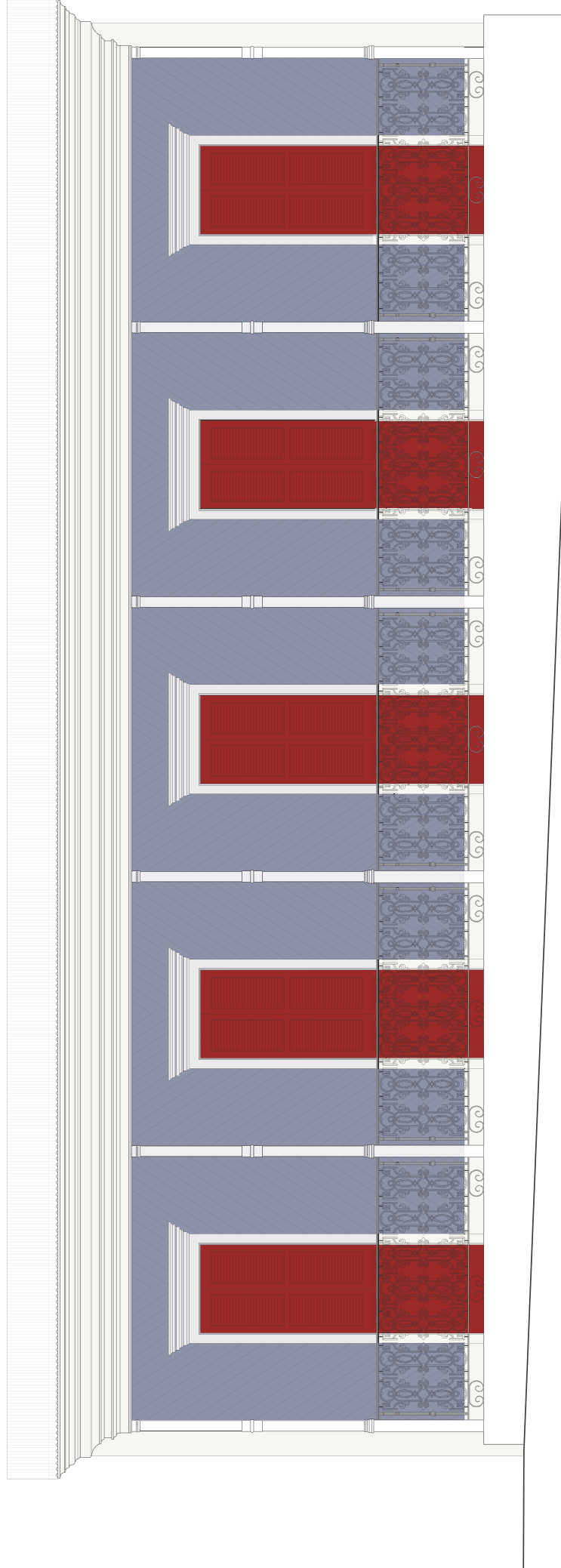
Reproduction of Original Paint Palette]



Reproduction of Original Paint Palette]



Reproduction of Original Paint Palette]



INDEX

B

building typology 1, 11, 13, 35, 73

C

Caribbean 1, 2, 3, 4, 5, 10, 28, 34, 74, 75

cast iron 14, 56, 57, 58, 61

concrete 14, 15, 40, 55, 57, 61, 62, 63, 68, 69, 199, 201, 212, 213, 251

D

Decorative glass 14

Diana Luna 3, 4, 8, 36, 37, 74

documentation 2, 25, 26, 27, 28, 34, 35, 54, 68, 70

domestic architecture 1, 2, 10, 11, 24, 26, 30, 34, 66, 68, 72

E

exposures 29, 34, 37, 39, 40, 50

F

façade 2, 12, 54, 55, 56, 58, 59, 60, 61, 63, 65, 67, 68

G

Graining 60, 61, 69, 78, 255, 257

Guayama 1, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 22, 28, 34, 35, 36, 37, 41, 45, 54, 55, 56, 57, 66, 68, 69, 71, 72, 74, 78

H

Hector Luis Colon 4

Hector Luis Colon Mendoza 4

historic buildings 4

Historic Zone VI, 3, 4, 9, 13, 36, 74

Hydraulic tiles 15

I

imitate masonry 13, 54, 67

L

lamilers 57, 58

M

Munsell Color Standard 45

N

New Orleans 10, 26, 30, 60, 77

P

painting techniques 29, 69

Pan-Caribbean 2, 34

patinated bronze 57, 69, 234

pigments 27, 54, 55, 60, 72

primers 45, 69

S

Spanish Creole 11, 12, 13

T

tromp l'oeil 58, 65

U

urban 1, 4, 11, 13, 24, 26

V

vernacular creole 2, 18, 19, 20, 21, 34, 35, 66, 68, 69, 71

Vernacular Creole 11, 12, 13, 14, 66

visual 2, 24, 25, 28, 39, 66

Z

zinc siding 18